Part 8 Development codes

8.1 Preliminary

(1) Development codes are codes for assessment where identified as an applicable code in part 5.

(2) Use codes and other development codes are specific to each planning scheme area.

(3) There are no use codes for the planning scheme.

(4) The following are the other development codes for the planning scheme:

(a) Infrastructure and works code

(b) Reconfiguring a lot code

(c) Water quality and acid sulfate soils code.

Editor's Note – Assessment benchmarks for certain assessable development and requirements for certain accepted development are also contained in the Planning Regulation.

8.2 Other development codes

8.2.1 Infrastructure and works code

8.2.1.1 Application

(1) This code applies where identified in the assessment benchmarks in the categories of development and assessment column of table 5.5.1 in part 5 of this planning scheme.

(2) When using this code, reference should be made to section 5.3.

8.2.1.2 Purpose

(1) The purpose of the infrastructure and works code is to ensure development is provided with infrastructure and services in accordance with recognised standards.

(2) The purpose of the code will be achieved through the following overall outcomes:

(a) works are carried out with an appropriate level of service and safety;

(b) infrastructure is provided in a cost-effective, efficient and coordinated manner; and

(c) works do not cause negative impacts to environmental values or people.

8.2.1.3 Specific benchmarks for assessment

Table 8.2.1.3 – Assessable development

Performance outcomes	Acceptable outcomes
General	
PO1 All lots are provided with access to services including: (1) waste water disposal; (2) water supply services; (3) electricity services; and (4) telecommunications services.	AO1.1 The lot is connected to reticulated water supply, sewerage service, electricity and telecommunications.
Earthworks	
PO2 The design and construction of site earthworks is undertaken in a safe and efficient manner while minimising impacts to adjoining properties and environmental values.	AO2.1 Design of site earthworks is undertaken in accordance with: (1) FNQROC Operational Works Design Guideline D2, Site Regrading; (2) FNQROC Operational Works Design Guidelines D5, Stormwater Quality; and (3) Department of Transport & Main Roads Technical Standard MRTS04, General Earthworks. AO2.2 Construction of site earthworks is undertaken in accordance with: (1) FNQROC Operational Works Specification S1, Earthworks; and (2) Department of Transport & Main Roads Standard Specification MRS04, General Earthworks.
Roadways, Pathways and Cycleways	
PO3 New roads are designed and constructed to be able to: (1) accommodate walking, cycling and vehicle movements; (2) provide on street parking; and (3) incorporate services and drainage.	No acceptable solution is nominated.

Performance outcomes	Acceptable outcomes
PO4 Where roadways, pathways and cycleways are to be provided, design and construction is undertaken in a safe, cost-effective, coordinated and efficient manner.	AO4.1 Design of roadways, pathways and cycleways is undertaken in accordance with: (1) FNQROC Operational Works Design Guideline D1, Road Geometry; (2) FNQROC Operational Works Design Guidelines D3, Road Pavements; (3) FNQROC Operational Works Design Guidelines D4 Stormwater Drainage (4) Department of Transport & Main Roads Technical Standard MRTS05, Unbound Pavements; (5) Department of Transport & Main Roads Technical Standard MRTS11, Sprayed Bituminous Surfacing; and (6) Department of Transport & Main Roads Technical Standard MRTS22, Supply of Cover Aggregate. AO4.2 Construction of roadways are undertaken in accordance with: (1) FNQROC Operational Works Specification S2, Road Pavements; (2) FNQROC Operational Works Specification S3, Segmental Paving; (3) FNQROC Operational Works Specification S4, Stormwater Drainage; (4) Department of Transport & Main Roads Standard Specification MRS05, Unbound Pavements; (5) Department of Transport & Main Roads Standard Specification MRS11, Sprayed Bituminous Surfacing; and (6) Department of Transport & Main Roads Standard Specification MRS22, Supply of Cover Aggregate.
Traffic and Driveway Crossovers	
PO5 Sites are managed during construction to minimise negative traffic impacts to existing roads.	AO5.1 All site works are managed in accordance with Manual of Uniform Traffic Control Devices (MUTCD) Part 3, Works on Roads.
PO6 Driveways are provided to a standard that protects community safety and the safe and efficient operation of transport networks.	AO6.1 A driveway crossover to each lot is designed and constructed in accordance with the FNQROC Regional Development Manual, Standard Drawings.
Water Supply	
PO7 Where lots are intended to be connected to a water supply, the design and construction is undertaken in a safe, cost-effective, coordinated and efficient manner that supports sustainable development practices.	AO7.1 Design and construction of water supply systems is undertaken in accordance with FNQROC Operational Works Design Guidelines D6, Water Reticulation.

Performance outcomes	Acceptable outcomes
Sewerage Infrastructure	
PO8 Where lots are intended to be provided with reticulated sewerage, the design and construction is undertaken in a safe, cost effective, coordinated and efficient manner that supports sustainable development practices.	AO8.1 Design and construction of sewerage systems is undertaken in accordance with FNQROC Operational Works Design Guidelines D7, Sewerage System.
Service Conduits	
PO9 The design and construction of the service conduits is undertaken in a safe, cost effective, coordinated and efficient manner that supports sustainable development practices.	AO9.1 The design of service conduits is undertaken in in accordance with FNQROC Operational Works Design Guidelines D8, Utilities.

8.2.2 Reconfiguring a lot code

8.2.2.1 Application

This code applies where identified in the assessment benchmarks in the categories of development and assessment column of table 5.5.1 in part 5 of this planning scheme.

When using this code, reference should be made to section 5.3.

8.2.2.2 Purpose

(1) The purpose of the reconfiguring a lot code is to provide for good subdivision design that:

- (a) is consistent with the creation of connected, accessible, pleasant and safe communities; and
- (b) promotes the efficient use and servicing of land.

(2) The purpose of the code will be achieved through the following overall outcomes:

- (a) development helps to create pleasant, safe and attractive living environments;
- (b) the layout, size and dimensions of lots are suited to the intended use of the land including buildings, associated structures, vehicle access, parking and recreation areas;
- (c) the design and layout of lots is responsive to the natural environment, including its topography, drainage flow paths, slope of the land, environmental and natural resource values;
- (d) development meets the needs of the community for a range of different housing types;
- (e) the orientation and layout of lots allows buildings to be positioned in a way that is suited to the local climate and to reduce demand for energy and water;
- (f) public open spaces are well designed, centrally located and sufficient to meet the needs of the community;
- (g) the street system provides for safe and convenient traffic flows and supports pedestrian and cyclist movement;
- (h) development is logically coordinated to maximise the efficient use of transport, energy, water and sewage infrastructure.

8.2.2.3 Specific benchmarks for assessment

Table 8.2.2.3 (a) – Assessable development

Performance outcomes	Acceptable outcomes
General	
PO1 The layout of new lots: (1) responds to the site characteristics, including natural features, views and topography; and (2) minimises the need for earthworks.	No acceptable solution is nominated.
Accessible and Pleasant Residential Areas	
PO2 The layout of new lots: (1) is easily accessible by people walking and cycling; and (2) is well connected to other facilities and township areas, including community facilities and public parks.	No acceptable solution is nominated.
PO3 Street orientation, lot orientation and lot size facilitate development that conserves non-renewable energy sources and enhances climate responsiveness by: (1) optimising an east-west orientation for the long axis of street blocks or where north-south street orientation is unavoidable, proportioning lots to allow for appropriate building orientation; and (2) creating lots that are generally rectangular in shape.	No acceptable solution is nominated.

Performance outcomes	Acceptable outcomes
PO4 Residential lots are not subjected to unreasonable nuisance noise and air quality impacts.	AO4.1 Residential lots are located more than: (1) 100m (straight line measurement) of existing or future air services, animal keeping, animal husbandry, cropping, emergency services, high impact industry, intensive animal industry, intensive horticulture, major electricity infrastructure, medium impact industry, major sport facility, renewable energy facility, service station, special industry, substation, telecommunications facility, transport depot and utility installation; (2) 1,000m (straight line measurement) of existing extractive industries involving blasting or crushing; and (3) 200m (straight line measurement) of existing extractive industries not involving blasting or crushing.
Safe Communities	
PO5 The design and layout of lots helps to make communities safe for residents and visitors by: (1) creating an interconnected grid street pattern; (2) avoiding the creation of rear lots except where necessary to gain access to traditional land by Traditional Owners; (3) proving public parks that are centrally located to maximise overlooking from nearby development; and (4) facilitating walking and cycling.	No acceptable solution is nominated.
Road Access	
PO6 Residential lots have road frontages that are of sufficient width to allow easy and safe access.	AO6.1 All lots, other than rear lots, have a minimum road frontage of 10m.
Lot Size and Dimensions	
PO7 Rear lots are established only where necessary in order to: (1) facilitate access to traditional land by Traditional Owners; or (2) avoid subdivision of land unsuitable for development, such as land affected by natural hazards.	No acceptable solution is nominated.

Performance outcomes	Acceptable outcomes
PO8 Subdivision results in lots of a size, shape and orientation that allows for: (1) siting of a building required for the intended use; (2) front, rear and side building setbacks consistent with surrounding development; (3) on-site parking and private open space, including space for zarzars and outdoor kitchens for feasting, where required; (4) a mix of lot sizes to allow for small and large dwellings, dual occupancies and multiple dwellings; and (5) on-site sewage treatment where reticulated sewerage is not available.	AO8.1 *For all lots:* Minimum lot size is in acordance with table 8.2.3.3 (b). AO8.2 *For rear lots:* An access strip or easement is provided for access, which: (1) has a minimum width of 4m; and (2) has a maximum length of 40m.
Road Function and Layout	
PO9 The road network accommodates the following primary functions: (1) access to lots; (2) social and activity space; (3) stormwater drainage paths; (4) utility services location; and (5) streetscape and landscaping.	No acceptable solution is nominated.
PO10 Intersections along residential streets are spaced to create safe and convenient pedestrian movements.	AO10.1 Block lengths are no greater than 100m.

Table 8.2.3.3 (b) – Minimum Lot Size

Acceptable outcomes (AO)	
Environmental Management and Conservation Zone	10ha
Township Zone where reticulated sewerage is available	300sqm
Township Zone where no reticulated sewerage is available	2000sqm

8.2.3 Water quality and acid sulfate soils code

8.2.3.1 Application

(1) This code applies where identified in the assessment benchmarks in the categories of development and assessment column of tables 5.4.1, 5.4.2, 5.5.1 or 5.7.1, in part 5 of this planning scheme.

(2) When using this code, reference should be made to section 5.3.

8.2.3.2 Purpose

(1) The purpose of the water quality and acid sulfate soils code is to ensure that development effectively manages stormwater run-off and acid sulfate soils to protect the environmental values and quality of Torres Strait Island fresh and marine waters.

(2) The purpose of the code will be achieved through the following overall outcomes:

(a) the environmental values of Torres Strait waterways, wetlands and marine areas are protected or enhanced;

(b) stormwater run-off does not reduce the quality of receiving waters, including waterways, wetlands and marine areas;

(c) stormwater is managed to ensure that the impacts of overland flow and flooding are not worsened for people or property;

(d) the natural flow regime, including flow paths and quantity, is maintained to the extent possible;

(e) potential negative impacts resulting from acid sulfate soils, erosion and sediment flow are avoided;

(f) stormwater, water quality and erosion control infrastructure is:

(i) provided in a cost effective and efficient manner; and

(ii) located and designed to minimise whole-of-lifecycle costs.

8.2.3.3 Specific benchmarks for assessment

Table 8.2.3.3(a) – Assessable development

Performance outcomes	Acceptable outcomes
Water Quality	
PO1 Development contributes to the protection of environmental values of receiving waters and meets the water quality objectives nominated for the Torres Strait region during both construction and operation.	AO1.1 *For development involving a site area of 2,500sqm or more, six or more residential lots, or six or more dwellings:* Stormwater run-off leaving the development site complies with the stormwater quality objectives set out in table 8.2.3.3(b) and 8.2.3.3(c).
PO2 The entry and transport of contaminants in stormwater or wastewater is avoided or minimised.	No acceptable outcomes are nominated.

Performance outcomes	Acceptable outcomes
PO3 During construction and operation, development does not discharge wastewater into waterways unless: (1) it cannot practicably be avoided; (2) the wastewater discharge is minimised through re-use, recycling, recovery and treatment for disposal to sewer, surface water and groundwater; (3) ecological processes, riparian vegetation, wateray intergrity and downstream ecosystem health are maintained. **Editor's Note** – To demonstrate achievement with this PO, a wastewater management plan (WWMP) and stormwater quality management plan (SQMP) prepared by a suitably qualified person may be required.	No acceptable outcomes are nominated.
PO4 Acid, iron, aluminium and other metals are not released into waterways through wastewater discharge.	AO4.1 Wastewaters are managed so that: (1) the pH of any wastewater discharged is maintained between 6.5 and 8.5 to avoid mobiliation of acid, iron, aluminium and metals; (2) holding times of neutralised wastewaters ensures the flocculation and removal of any dissolved iron prior to release; (3) visible iron floc is not present in any discharge; (4) precipitated iron floc is contained and disposed of; and (5) wastewater and precipitates that cannot be contained and treated for discharge on site are removed and disposed of through trafe waste and another lawful method.
Stormwater Drainage Design	
PO5 Wherever practicable, natural drainage lines and associated natural hydraulic capacity are retained.	AO5.1 All existing natural waterways and overland flow paths are retained.
PO6 The stormwater drainage system maintains the pre-development velocity and quantity of run-off outside of the site and does not otherwise worsen or cause nuisance to adjacent upstream or downstream land.	No acceptable outcomes are nominated.
PO7 The stormwater drainage system is designed to function in the event of a minor system blockage.	No acceptable outcomes are nominated.

Performance outcomes	Acceptable outcomes
PO8 Roof and surface run-off is managed to prevent stormwater flows from entering buildings and to be diected to a lawful point of discharge.	No acceptable outcomes are nominated.
PO9 Where located within open space, stormwater devices or functions do not reduce the utility of that space for its intended recreational or ecological functions.	No acceptable outcomes are nominated.
PO10 The full extent of maintenance requirements and costs associated with devices used within the stormwater sysem are minimised.	No acceptable outcomes are nominated.
Port Services	
PO11 Development involving port services provides facilities for the handling and disposal of ship-sourced pollutants by: (1) providing common user facilities for the handling and disposal of ship-sourced pollutants including oil, garbage and sewage; (2) designing and operating the facilities to ensure the risk of spillage from operations is minimised; (3) storing appropriate equipment to contain and remove spillages in a convenient position near the facility that is available for immediate use; and (4) allowing for boats visiting the facility to make use of ship-sourced pollutants reception facilities. **Editor's Note** – Refer to: Australian and New Zealand Environment and Conservation Council (ANZECC), 1997, Best Practice Guidelines for Waste Reception Facilities at Ports, Marinas and Boat Harbours in Australia and New Zealand. **Editor's Note** – Reception facilities require code assessment under the *Plumbing and Drainage Act 2002*. The plumbing code assessment process will ensure that the proposed facilities address 'peak load'.	No acceptable outcomes are nominated.

Performance outcomes	Acceptable outcomes
Erosion Prevention and Sediment Control	
PO12 Development does not increase: (1) the concentration of total suspended solids or other contaminants in stormwater flows during site construction; and (2) run-off which causes erosion either on site or off site. **Editor's Note** – In order to demonstrate compliance with PO12-PO16, an erosion and sediment control plan prepared by a suitably qualified RPEQ (Registered Professional Engineer of Queensland), Certified Practising Soil Scientist (CPSS) or Certified Professional in Erosion and Sediment Control (CPESC) may be required. Such a plan should address the design parameters set out in table 8.2.3.3(b) and 8.2.3.3(c).	No acceptable outcomes are nominated.
PO13 Development avoids unnecessary disturbance to soil, waterways or drainage channels.	No acceptable outcomes are nominated.
PO14 All soil surfaces are effectively stabilised against erosion.	No acceptable outcomes are nominated.
PO15 The functionality of stormwater infrastructure is protected from the impacts of erosion, turbidity and sedimentation, both within and external to the development site.	No acceptable outcomes are nominated.
PO16 Areas outside the development site are not adversely impacted by erosion or sedimentation.	No acceptable outcomes are nominated.

Performance outcomes	Acceptable outcomes
Acid Sulfate Soils	
PO17 For development within an area identified as potentially affected by acid sulfate soils on the local plan maps in Schedule 2, the generation or release of acid and metal contaminants into the environment from acid sulfate soils is avoided by: (1) avoiding the disturbance of acid sulfate soils when excavating or otherwise removing soil or sediment, draining or extracting groundwater, excluding tidal water or filling land; or (2) where disturbance of acid sulfate soils can not be avoided, development: (a) neutralises existing acidity and prevents the generation of acid and metal contaminants; and (b) prevents the release of surface or groundwater flows containing acid and metal contaminants into the environment. **Editor's Note** – Where works are propose within an area identified as potentially affected by acid sulfate soils, it is likely that an onsite acid sulfate soils investigation will be required. Where acid sulfate soils can not reasonably be avoided, investigation results assist in the planning of treatment and remedial activities and must be undertaken in accordance with the Queensland Acid Sulfate Soil Technical Manual. Applicants should also refer to the Guidelines for Sampling Analysis of Lowland Acid Sulfate Soils in Queensland, Acid Sulfate Soils Laboratory Methods Guidelines or Australian Standard 4969. It is highly recommended that the applicant develop a practical Acid Sulfate Management Plan for use in monitoring and treating acid sulfate soils.	AO17.1 Development does not involve: (1) excavating or otherwise removing 100 cubic meters or more of soil or sediment at or below 5m AHD; (2) permanently or temporarily extracting groundwater resulting in the aeration of of previously saturated acid sulfate soils; or (3) filling in excess of 500 cubic meters with an average depth of 0.5m or greater that results in: (a) actual acid sulfate soils being moved below the water table; or (a) previously saturated acid sulfate soils being aerated.

Table 8.2.3.3(b) – Stormwater Management Design Objectives: Construction Phase

Issue		Design Objective
Drainage control	Temporary drainage works	(1) Design life and design storm for temporary drainage works: (a) Disturbed area open for <12 months—1 in 2-year ARI event (b) Disturbed area open for 12–24 months—1 in 5-year ARI event (c) Disturbed area open for > 24 months—1 in 10-year ARI event (2) Design capacity excludes minimum 150 mm freeboard (3) Temporary culvert crossing—minimum 1 in 1-year ARI hydraulic capacity
Erosion control	Erosion control measures	(1) Minimise exposure of disturbed soils at any time (2) Divert water run-off from undisturbed areas around disturbed areas (3) Determine the erosion risk rating using local rainfall erosivity, rainfall depth, soil-loss rate or other acceptable methods (4) Implement erosion control methods corresponding to identified erosion risk rating
Sediment control	Sediment control measures Design storm for sediment control basins Sediment basin dewatering	(1) Determine appropriate sediment control measures using: (a) potential soil loss rate, or (b) monthly erosivity, or (c) average monthly rainfall (2) Collect and drain stormwater from disturbed soils to sediment basin for design storm event: (a) design storm for sediment basin sizing is 80th% five-day event or similar (3) Site discharge during sediment basin dewatering: (a) TSS < 50 mg/L TSS, and (b) Turbidity not >10% receiving waters turbidity, and (c) pH 6.5–8.5
Water quality	Litter and other waste, hydrocarbons and other contaminants	(1) Avoid wind-blown litter; remove gross pollutants (2) Ensure there is no visible oil or grease sheen on released waters (3) Dispose of waste containing contaminants at authorised facilities
Waterway stability and flood flow management	Changes to the natural waterway hydraulics and hydrology	(1) For peak flow for the 1-year and 100-year ARI event, use constructed sediment basins to attenuate the discharge rate of stormwater from the site

Table 8.2.3.3(c) – Stormwater Management Design Objectives: Post Construction Works

Issue		Design Objective
Minimum reductions in mean annual load from unmitigated development (%)	Total suspended solids (TSS)	80 or in lieu of modelling, provide a bio-retention treatment area that is 1.5% of the contributing catchment area.
	Total phosphorus (TP)	60 or in lieu of modelling, provide a bio-retention treatment area that is 1.5% of the contributing catchment area.
	Total Nitrogen (TN)	40 or in lieu of modelling, provide a bio-retention treatment area that is 1.5% of the contributing catchment area.
	Gross pollutants > 5mm	90 or in lieu of modelling, provide a bio-retention treatment area that is 1.5% of the contributing catchment area.