



**MODEL CODE FOR
NEIGHBOURHOOD DESIGN**
A CODE FOR RECONFIGURING A LOT

AUGUST 2020

Queensland Treasury

Planning Group

INVESTED IN PLANNING FOR YOUR FUTURE



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Queensland Treasury
PO Box 611, Brisbane QLD 4001.
1 William Street Brisbane Qld 4000 (Australia)

Phone: 13 QGOV (13 7468)
Email: planningcomms@dsdmip.qld.gov.au
Web: www.treasury.qld.gov.au/planning

Role of the model code

These model provisions have been developed to assist local government to address aspects of the Liveable communities state interest of the State Planning Policy 2017 (SPP) by providing a contemporary set of standards that can be used by local government to assist in integrating the state interest.

The model code is a set of example provisions which supports healthy and active communities and promotes the creation of walkable neighbourhoods. The code provides best practice neighbourhood design, to assist local government and developers in facilitating these outcomes across the state at reconfiguration of a lot stage.

The model code recognises the role of local government in planning for their local community and that a 'one size fits all' approach may not appropriately respond to local matters or cater to the diverse character of local communities throughout Queensland.

Local government has the option of adopting the model code into their planning scheme in whole or in part or integrating components of the code into existing planning scheme codes, for example into an existing overlay or zone code. This ensures local matters can be addressed and that there is no conflict or duplication with other parts of the planning scheme.

The model code has been structured in a traditional format, comprising purpose, overall outcomes, performance outcomes and acceptable outcomes. It is not mandatory that assessment benchmarks be articulated in this format in a planning scheme.

The model code provisions are not applicable in development assessment, until they are integrated and adopted in a planning scheme.

Statutory and regulatory context

The Planning Regulation 2017 (Planning Regulation) requires assessment managers to assess certain new residential reconfiguration of a lot development against specific assessment benchmarks that support the development of walkable neighbourhoods. The purpose of the assessment benchmarks is to ensure the reconfiguration supports convenient and comfortable walking for transport, recreation, leisure and exercise in the local area and they include:

- connectivity for pedestrians is provided through a grid-like street layout responding to the local landscape
- block lengths are a maximum of 250 metres
- footpaths are provided on at least one side of local neighbourhood roads and on both sides of main streets
- at least one street tree is provided per 15 metres on each side of all streets
- blocks are within 400 metres of a park or open space to the extent topography and other physical constraints reasonably permit. A park may refer to any of the types of park defined for this assessment benchmark.

The model code and the Planning Regulation assessment benchmarks together provide direction about what is required to encourage healthier and more active communities across the state. The assessment benchmarks are illustrated in the model code for reference only; refer to schedule 12A of the Regulation when applying the assessment benchmarks because not all the applicable provisions have been referenced in this document.

The Planning Regulation assessment benchmarks should be considered by local government when preparing a planning scheme or modifying the model code provisions.

Local government may exceed or have extra assessment benchmarks for the purpose of supporting convenient and comfortable walking for transport, recreation, leisure and exercise.

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1.0 Purpose

- (1) The purpose of the Neighbourhood design code is to:
 - (a) facilitate the creation of walkable neighbourhoods that support healthy and active communities
 - (b) facilitate a neighbourhood design and layout that creates well-integrated, well-served, compact and connected neighbourhoods.

- (2) The purpose of the model code for neighbourhood design will be achieved through the following overall outcomes:
 - (a) lot reconfiguration creates safe, convenient, functionally efficient and attractive neighbourhoods that use urban land efficiently
 - (b) lot reconfiguration creates walkable residential neighbourhoods and facilitates accessible centres, community facilities and employment opportunities
 - (c) lot reconfiguration occurs in a manner that enables the retention and protection of significant environmental and landscape values and provides movement corridors for wildlife
 - (d) lot reconfiguration meets the diverse needs of the community and facilitates a range of housing types to meet different family and household structures
 - (e) lot and street layout enables climatically responsive orientation of buildings
 - (f) infrastructure is supplied to all lots in a safe, efficient and co-ordinated manner, which will minimise whole of life cycle costs and potential for environmental harm or nuisance
 - (g) the movement system provides for high levels of permeability and safety for all users and facilitates high levels of accessibility by walking and cycling and where required, public transport
 - (f) street design provides for a shaded and convenient walking environment, supporting healthy and active communities
 - (g) lot reconfiguration contributes to the provision of a safe, accessible and useable network of open space for local communities.

Note: The model code includes the Planning Regulation 2017 assessment benchmarks that apply to certain reconfiguration of a lot in certain residential zones to support walkable neighbourhoods. These are highlighted in grey throughout the code.

2.0 Performance outcomes and acceptable outcomes

Performance outcomes	Acceptable outcomes
<p>Connected neighbourhood design</p>	
<p><i>Schedule 12A of the Planning Regulation, assessment benchmarks for certain reconfiguration of a lot.</i></p>	
<p>CONNECTIVITY</p>	
<p><i>The reconfiguration provides connectivity for pedestrians by—</i></p>	
<p><i>(a) ensuring that any roads constructed or extended in association with the reconfiguration are connected in a grid-like pattern that is responsive to topography and other physical constraints; and</i></p>	
<p><i>(b) ensuring that, to the extent topography and other physical constraints reasonably permit, any roads constructed or extended in association with the reconfiguration, or footpaths provided in relation to the reconfiguration—</i></p>	
<p><i>(i) connect to roads and footpaths in surrounding areas; or</i></p>	
<p><i>(ii) allow for connection to future roads and footpaths in surrounding areas.</i></p>	
<p>PO1 The design of the neighbourhood provides:</p> <ul style="list-style-type: none"> (a) a grid-like street network and quality streetscape; (b) a movement network that prioritises pedestrians and cyclists and integrates with the surrounding area; (c) compact walkable neighbourhoods that are well connected to and integrated with proposed or established movement networks, environmental corridors, open space and recreation facilities, community facilities, centres and places of employment in the surrounding area; (d) sufficient land for open space and community facilities appropriate to the size of the development and local community needs; and (e) a mix of lot sizes that provide for a range of housing choices. 	<p>No acceptable outcome is nominated.</p>
<p>PO2 The location of the development:</p> <ul style="list-style-type: none"> (a) contributes to the efficient use of land and infrastructure; and (b) ensures development occurs in a logical pattern and sequence. 	<p>No acceptable outcome is nominated.</p>
<p>PO3 The design and layout of streets, lots and infrastructure:</p> <ul style="list-style-type: none"> (a) avoids or minimises alteration to natural features such as drainage lines and waterways; (b) avoids increasing the risks associated with natural hazards; (c) minimises the need for vegetation clearing; (d) retains or provides viable ecological corridors for wildlife movement; and (e) minimises alteration to the natural topography. 	<p>No acceptable outcome is nominated.</p>

Performance outcomes	Acceptable outcomes
Street block and lot design	
<i>Schedule 12A of the Planning Regulation, assessment benchmarks for certain reconfiguration of a lot.</i>	
MAXIMUM LENGTH OF PARTICULAR BLOCKS	
<p>(1) <i>The reconfiguration provides for convenient pedestrian movement by ensuring the length of each boundary of a block for the reconfiguration does not exceed the lesser of—</i></p> <p style="margin-left: 20px;">(a) <i>a maximum length for a boundary of a block stated in a local assessment benchmark for the reconfiguration; or</i></p> <p style="margin-left: 20px;">(b) <i>250m.</i></p> <p>(2) <i>Subsection (1) does not apply in relation to a block for the reconfiguration that the development application for the reconfiguration states will be subdivided as part of a future stage of development.</i></p>	
<p>PO4</p> <p>Street blocks are provided as a connected grid-like pattern or modified grid-like pattern – in order to respond to topography and other physical constraints, ensure efficient infrastructure provision or avoid natural hazards.</p>	No acceptable outcome is nominated.
<p>PO5</p> <p>Street blocks provide a mid-block path for pedestrian and cyclist movement where this improves connectivity to open space and recreation facilities, community facilities, centres and places of employment.</p> <p><i>Note: For design guidance, refer to Crime Prevention Through Environmental Design (CPTED) Guidelines.</i></p>	No acceptable outcome is nominated.
<p>PO6</p> <p>Cul-de-sacs are included as part of the connected grid-like street layout where:</p> <p>(a) necessary to achieve a neighbourhood design that:</p> <p style="margin-left: 20px;">(i) avoids development on constrained land, such as steep slopes or subject to a natural hazard;</p> <p style="margin-left: 20px;">(ii) minimises fragmentation of environmental corridors; and</p> <p style="margin-left: 20px;">(iii) protects natural features; or</p> <p>(b) a temporary street layout ahead of a future urban expansion; or</p> <p>(c) involving balance ‘land-locked’ infill sites that are unable to create a through-connection.</p>	No acceptable outcome is nominated.
<p>PO7</p> <p>Street blocks containing small or narrow lots incorporate laneways (including rear lanes) that contribute to:</p> <p>(a) minimising the number of vehicle crossovers in the street; and</p> <p>(b) accommodating sufficient onsite and on-street parking.</p>	No acceptable outcome is nominated.
<p>PO8</p> <p>The design and layout of streets and lots facilitate casual surveillance of and access to parks.</p> <p><i>Note: For design guidance, refer to Crime Prevention Through Environmental Design (CPTED) Guidelines.</i></p>	<p>A08</p> <p>Street and lot layout results in at least 50 per cent of the perimeter of parks to be fronted by a road.</p>

Performance outcomes	Acceptable outcomes
<p>PO9 A diversity of lot sizes facilitates housing choice and a variety of lot frontages contributes to an interesting streetscape in each street.</p>	<p>A09 There are no more than eight (8) lots with the same frontage width in a row.</p>
<p>PO10 Lots with frontages of 10 metres or less are dispersed and located so that streets are not dominated by driveways and sufficient on street parking can be provided.</p>	<p>A010 Narrower lots within the block are arranged so that: (a) there are no more than eight (8) lots with a frontage of 10 metres or less in a row, unless serviced by a rear lane); and (b) there are no more than six (6) lots with a frontage of 7.5 metres or less in a row, unless serviced by a laneway (including a rear lane).</p>
<p>PO11 Access arrangements for lots, including the location, spacing and width of driveway crossovers, maintains the function, safety and efficiency of streets and major pathways.</p>	<p>No acceptable outcome is nominated.</p>
<p>Movement network and street design</p>	
<p><i>Schedule 12A of the Planning Regulation, assessment benchmarks for certain reconfiguration of a lot.</i></p>	
<p>STREET TREES</p>	
<p><i>The reconfiguration provides shade for comfortable walking by—</i></p>	
<p>(a) <i>if a local assessment benchmark for the reconfiguration requires the planting of more than 1 tree per 15m on each side of a new road—complying with the local assessment benchmark; or</i></p>	
<p>(b) <i>otherwise—ensuring at least 1 tree is planted per 15m on each side of a new road.</i></p>	
<p>FOOTPATHS</p>	
<p><i>The reconfiguration provides for convenient and comfortable pedestrian movement by ensuring—</i></p>	
<p>(a) <i>for a new road used mainly for providing direct access to a created lot—a footpath is constructed—</i></p>	
<p>(i) <i>if a local assessment benchmark for the reconfiguration requires the construction of a footpath on both sides of the new road—on both sides of the road; or</i></p>	
<p>(ii) <i>otherwise—on at least 1 side of the new road; or</i></p>	
<p>(b) <i>for another new road - a footpath is constructed on both sides of the road.</i></p>	
<p>PO12 The movement network: (a) prioritises pedestrian and cyclists; (b) provides a high level of connection both within the neighbourhood and to surrounding areas for pedestrians, cyclists, vehicles and where required, public transport; and (c) ensures safe and efficient access for service and emergency vehicles.</p>	<p>No acceptable outcome is nominated. <insert if relevant> <i>Note:</i> The servicing, access and parking code also contains relevant requirements for the design and construction of new roads.</p>
<p>PO13 Streets and lanes are convenient, safe, accessible and shaded for pedestrians.</p>	<p>A013 The design of each type of street and lane includes footpaths and street trees in accordance with Table 1.</p>

Performance outcomes	Acceptable outcomes
<p>PO14</p> <p>The geometric design features and widths of each type of street and lane:</p> <ul style="list-style-type: none"> (a) ensures it can perform its function in the road hierarchy safely and efficiently; (b) encourages traffic speeds and volumes to levels commensurate with its function in the road hierarchy; (c) has an adequate horizontal and vertical alignment to accommodate utilities, on-street parking, access to lots, street trees and furniture and safe pedestrian and cyclist movement; and (d) ensures unhindered access by service and emergency vehicles. 	<p>AO14.1</p> <p>The design of streets and lanes is in accordance with Table 1 and with the Street Design Manual: Walkable Neighbourhoods 2020.</p> <p>AO14.2</p> <p>Where cul-de-sacs are proposed, the cul-de-sac head:</p> <ul style="list-style-type: none"> (a) accommodates a path for pedestrian and cyclist movement to the wider movement network; (b) is designed to enable a three-point turn by a medium-rigid vehicle; and (c) is designed to accommodate both on-street parking and medium-rigid vehicle movement.
<p>PO15</p> <p>The siting and design of footpaths:</p> <ul style="list-style-type: none"> (a) provides direct, convenient and continuous routes, having regard to likely pedestrian desire lines, trip purpose, topography and likely user volumes and types; (b) creates a safe environment for pedestrians by maximising sightlines and opportunities for casual surveillance, avoiding concealment points and being well lit; (c) protects the retention of trees and responds to significant features; and (d) minimises potential conflict points or provides appropriate and safe design solutions. 	<p>No acceptable outcome is nominated.</p>
<p>PO16</p> <p>The movement network is designed to allow for the extension of existing, or provision of future public transport routes, that are convenient and accessible to the community.</p>	<p>AO16</p> <p>At least 90% of new lots are within 400 metres of:</p> <ul style="list-style-type: none"> (a) an existing public transport stop; or (b) a planned public transport route or stop; or (c) a street that can support a future public transport route.
<p>PO17</p> <p>Safe, convenient and efficient intersections are provided for vehicles, pedestrians, cyclists and public transport.</p>	<p>AO17</p> <p>Intersections and pedestrian and cyclist crossings are provided in accordance with insert reference to LG design standards or Street Design Manual: (Walkable Neighbourhoods).</p>
<p>PO18</p> <p>On-street parking is provided to suit the housing density in neighbourhood streets and is sited and designed to ensure a safe, accessible and convenient street environment for all users.</p>	<p>AO18.1</p> <p>On-street parking is provided as follows:</p> <ul style="list-style-type: none"> (a) where density is less than 20 dwellings per hectare – a minimum of 0.75 on street spaces per lot, with a minimum of 75% located within 25 metres and all others within 50 metres of a lot; or (b) where density is greater than 20 dwellings per hectare – a minimum of 0.50 on street spaces per lot, located within 25 metres of a lot.

Performance outcomes	Acceptable outcomes
	<p>AO18.2</p> <p>On-street parking spaces are sited and designed so that they do not obstruct sight lines, vehicle access and movement (including refuse vehicles) or pedestrian movement.</p> <p>Note: The preparation of an on-street parking analysis plan may assist in demonstrating compliance with this assessment benchmark.</p>
<p>PO19</p> <p>Laneways (including rear lanes) are designed to:</p> <ul style="list-style-type: none"> (a) provide enough width for safe and efficient vehicle movement, including by service and emergency vehicles; (b) be a slow speed environment and shared zone for pedestrians, cyclists and vehicles; (c) not be longer than 140 metres without a mid-block path for pedestrian and cyclist access to an adjoining street; and (d) not be a dead-end or cul-de-sac. 	<p>No acceptable outcome is nominated.</p>
<p>Neighbourhood open space network</p>	
<p><i>Schedule 12A of the Planning Regulation, assessment benchmarks for certain reconfiguration of a lot.</i></p>	
<p>PARKS AND OTHER AREAS OF OPEN SPACE</p>	
<ol style="list-style-type: none"> 1. <i>The reconfiguration ensures access to areas for recreation, leisure or exercise by ensuring that, to the extent topography and other physical constraints reasonably permit, a part of each block for the reconfiguration is within 400m of a park or another area of open space that is accessible to the public.</i> 2. <i>In this section— park includes—</i> <ul style="list-style-type: none"> (a) <i>an existing park; and</i> (b) <i>a park, to be provided under a development approval, if development of the park has started; and</i> (c) <i>land identified as a park in a local planning instrument; and</i> (d) <i>land identified in an LGIP for public park infrastructure.</i> 	
<p>PO16</p> <p>Neighbourhood design provides for an accessible open space network that:</p> <ul style="list-style-type: none"> (a) accommodates the planned location of trunk open space infrastructure; (b) contributes to the legibility and character of the neighbourhood; (c) links to existing parkland or open space networks wherever possible; (d) provides for multiple purposes; (e) meets the community’s needs and is designed to maximise use by the community it serves; and (f) offers a broad range of informal and formal experiences to the community including provision of parks which range from small pocket parks to large district parks. 	<p>No acceptable outcome is nominated.</p> <p><i>Note: The local government infrastructure plan identifies the general location and desired standards of service for trunk open space infrastructure.</i></p>

Performance outcomes	Acceptable outcomes
<p>A021 Sufficient land is provided for open space and community facilities appropriate to the characteristics of the neighbourhood and local community needs.</p>	<p>A021 Local recreational parks are provided at a rate of: (a) 0.5 ha/1,000 people where density is 15 to 20 dwellings / ha; or (b) 1.0 ha/1,000 people where density is greater than 30 dwellings / ha.</p>
<p>P022 Local recreational parks are of a size and configuration that creates useable spaces and sited on safe and useable land.</p>	<p>A022.2 Local recreational parks have: (a) a minimum activity area of 2,000 square metres, that: (i) excludes land with a slope greater than 1:5; and (ii) has a maximum slope of 1:10 for a minimum of 80 per cent of the area; and (b) a minimum dimension of 40 metres.</p> <p>A022.2 Local recreational parks are sited and designed so that: (a) at least 10% of the local recreational park area is located above the 2% Annual Exceedance Probability (AEP) flood level; and (b) all embellishments, including play equipment and shelters, are constructed above the 2% AEP flood level.</p>
<p>Services</p>	
<p>P023 Services, including water supply, stormwater management, sewage disposal, waste disposal, drainage, electricity and telecommunications, are provided in a manner that: (a) is efficient; (b) minimises risk of adverse environmental or amenity related impacts; (c) provides space for footpaths and street trees within the verge; and (d) ensures water is used efficiently and hydrological regimes and water quality is protected.</p>	<p>A023 The design of services is in accordance with the insert reference to LG design standards.</p>

Table 1: Design for access

Aspect	Street type			
	Collector street	Access street	Local access street	Laneway (including rear lane)
Application	Collector street	Access street	Local access street	Laneway (including rear lane)
Typical max. volume (vpd ⁽¹⁾)	< 6,000	< 3,000	< 1,000	< 400
Lot access	Yes	Yes	Yes	Yes
Reserve width (metres)	18 – 20	15.5 – 16.5	13.5 – 15.5	6.5 - 8 ⁽²⁾
Pavement width (metres)	7.5	7.5	5.5 where up to 50 contributing lots ⁽³⁾ 7.5 where 50 or more contributing lots	5
Footpath	Both sides	Both sides	One side ⁽⁴⁾	Shared
Street trees	Both sides	Both sides	Both sides	Possibly
Kerb type	Upright	Mountable	Mountable	Flush

Notes:

- (1) For concept planning purposes, a guide for traffic generation is a rule is 8 vpd/dwelling. (The historical rate of 10 vpd/dwelling has proved overly conservative for neighbourhood planning).
- (2) A minimum acceptable reserve width of a laneway (including rear lane) is 6.5 metres. The width is determined by the space required for the service infrastructure, vehicle turning movements, refuse bin collection, landscaping and planting and the lane length.
- (3) A 5.5 metres pavement width may be insufficient where lots with a frontage of 12.5 metres or less are opposite lots with a frontage of 12.5 metres or less.
- (4) Unless required as part of the pedestrian movement network or in the near vicinity of community facilities, parks, or schools where footpaths both sides are appropriate.



Queensland Treasury

1 William Street, Brisbane
GPO Box 611, Brisbane, Queensland 4001
Tel: 07 3035 1933 or 13 QGOV (13 74 68)
Email: info@treasury.qld.gov.au

