

# Practice note no. 12

Issued: March 2014

## Rear lanes: design and development

### Use of rear lanes

Rear lanes play a pivotal role in achieving diverse housing at densities of 30+ dwellings per hectare. Rear lanes deliver highly attractive streetscapes through relocating driveways and garages to the rear of narrow and small lots. Rear lanes can be cost-effective when providing for loft apartments over lane-accessed garages and when serving small lots which "front" the rear lane.

The former Urban Land Development Authority (ULDA) developed rear lanes at Fitzgibbon Chase, for both rear garage access and loft fronts. Other developments throughout Australia have been referenced in this practice note as examples of best practice in delivery of rear lanes.

This practice note is a collection of suggestions and learnings of former ULDA staff and consultants, to be used in the preparation of designs for and assessing development applications involving a rear lane.



An example lanescape (Varsity Lakes)

### Types of rear lanes

Two functional types of rear lanes are typically provided:

- » those that primarily provide access to garages; and
- » those that also provide front door access to loft homes and other small houses.

For the most part, the design for both types of lanes are identical; however those providing front door accesses should also consider providing a higher level of amenity and landscaping.



Rear lane with primarily access to garages (Varsity Lakes)



Rear lane with front door and garage access (Fitzgibbon Chase)

## Rear lane design considerations

All rear lanes:

Should	Should generally not
<ul style="list-style-type: none"> <li>» be wide enough to enable safe and efficient vehicle movement, including through movement of service vehicles, but not be overly wide (maximum 6.5 metres recommended in certain instances while - absolute maximum 7.5 metres in most circumstances)</li> <li>» preferably be straight or at least a long radius curve or in a T-configuration (rather than H-lanes, dog-leg lanes or tightly curved lanes)</li> <li>» be detailed to enable easy and safe access into and out of garages, but without using tilt-panel or other doors that open into the lane</li> <li>» be designed to ensure rear yards of properties can be fenced for security</li> <li>» be straight, but where there is a bend or intersection incorporated into the design, ensure the swept path of a garbage truck is accommodated. Similarly, working movement of the garbage truck needs to be considered</li> <li>» have pavement kerb constructed 100mm lower than the adjoining lot/building level to ensure stormwater is conveyed in the lane and not through the lot/building</li> <li>» have good passive surveillance into, along and through lanes</li> <li>» provide roof water connections within the lane to facilitate roof water from dwellings with their primary frontage to the lane</li> <li>» have a centre draining profile with the stormwater catchment limited to the lane</li> <li>» have a pavement cross fall to the centre of 2.5 per cent to 3 per cent.</li> </ul>	<ul style="list-style-type: none"> <li>» be longer than 140 metres without a mid-lane link</li> <li>» create a more convenient or direct through-route alternative for vehicles, cyclists or pedestrians than the adjoining street network</li> <li>» be dead ends or cul-de-sacs</li> <li>» provide for visitor parking within the lane, unless in specifically designated areas</li> <li>» have traffic calming devices</li> <li>» be a drainage path for any external catchment to the lane.</li> </ul>

### Rear lanes that provide front door access to loft homes

Rear lanes providing front door access to loft homes should also provide:

- » a reasonable level of amenity and landscaping
- » a maximum 140 metres from street visitor car parking to the entry of the dwelling fronting the rear lane
- » visible and well landscaped front doors from within the lane
- » house numbers and letter boxes to indicate entry points to dwelling, in accordance with Australia Post requirements and reflected in any Community Management Statements
- » a provision for metered services and other infrastructure
- » pavement treatment and materials to enable ease of access to, and maintenance of, underground services (power, telecom, water, sewer)
- » public lighting, located so that poles avoid reversing vehicle paths
- » adequate sightlines for both pedestrians and cars at intersections
- » acknowledgement of the (generally) low vehicle speed environment.

## When to provide a rear lane

### For terrace houses

There is a correlation between the width of a lot and when a rear lane is provided. Typically 0.75 on-street car parking spaces are required per house<sup>1</sup>. It is recommended that lane widths should be kept to the minimum recommended applicable widths in this practice note together with keeping to the minimum recommended setbacks to avoid lanes being confused with streets.

When lots are less than 7.5 metres wide it is preferable that garages be accessed from the rear lane to free up the front of the lot for on-street car parking. This situation is acceptable where dwellings are proposed to have a frontage to both a street and rear lane<sup>2</sup>.

### Lane width

A rear lane is typically no wider than 6.5 - 7.5 metres. The width of the lane is determined by the space required for service infrastructure, vehicle turning movements, refuse bin collection, landscaping and planting, the lane length, and the creation of a "lanescape" (rather than a "streetscape").

There is also a relationship between the lane width, garage/carport door setback and width of the garage/carport as detailed in Table 1 below. The main factor of this relationship is the turning circle of a typical, moderate sized motor vehicle, when entering the garage/carport in a forward gear. Note that other obstructions, such as pillars and columns, need to be clear of the vehicle swept path. The swept path will also determine location of landscape planting clear of driveways.

Table 1: Lane width and garage dimensions

Lane width	Garage/carport door setback to laneway	Garage/carport door width clear when open
6.5 metres	0 metres	3.0 metres
	1.5 metres	2.85 metres
7.5 metres	0 metres	2.8 metres
	1.5 metres	2.6 metres

### Garage opening dimensions and setbacks by lane width

Whilst the width of the rear lane will be typically 6.5 metres or 7.5 metres, the relationship and subsequent design solution for garage / carport doors and setbacks should address a balance between door width, garage setback, lanescape and maximization of limited private open space on small laneway lots. Note that by reducing garage/carport setbacks, perhaps thereby requiring a wider garage door, private open space (POS) within the lot can be maximized and in certain circumstances provide sufficient space for part time tandem carparking within this POS (a "carcourt"). The closer the buildings are located to the property boundary and therefore the closer they are together across the lane, means the less the lane will be confused with a street.

1 A parking analysis plan may be required in order to demonstrate an adequate number of on street car parking spaces are provided in the neighbourhood, notably where dwellings front a park and/or are not accessible from a street. For more information on on-street parking see PDA practice note on parking analysis plans.

## Lane length

The level of convenience, safety and security experienced by lane users is also dependent on the length of the lane and the nature and number of dwellings to be accessed from it.

A rear lane at the end of a block will typically deliver a lane with a length of 57.0 metres - 64.0 metres depending on the length of the lots adopted in the block design. A rear lane along the length of a block will typically deliver a block length of 120.0 metres - 140.0 metres. A mid block pedestrian/cycle link is recommended where the length of a rear lane is over 140.0 metres.

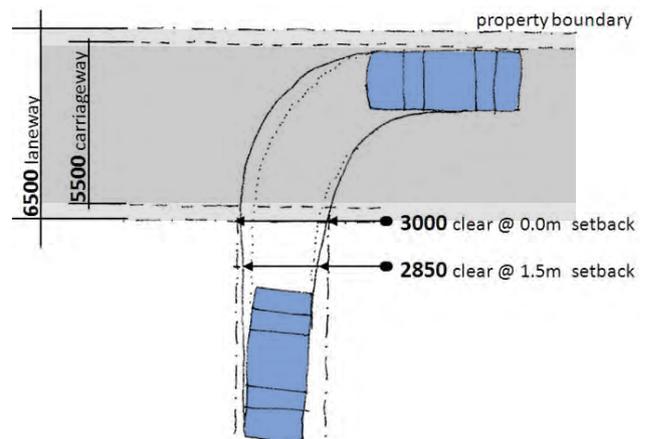
### Aesthetic treatment

The principle of providing diversity in housing in new neighbourhood development should extend to the treatment of buildings and landscaping in rear lanes.

Buildings should exhibit diversity in design, materials, colours, textures and finishes, with designs complementary to local conditions.

Some low maintenance planting is preferred in all lanes. Planting areas should be at least 750mm square (or if rectangular have minimum dimensions of 500mm x 750mm), have no turf, and have at least one tree planted mid-block and at the ends of the lane.

Double garage/carport doors are appropriate when a diversity of building and landscaping materials and a variety in door treatment have been introduced, particularly when the lane services primarily garages. An appropriate lanescape can be more easily achieved when a diversity of building materials and articulation has been introduced into above -garage dwellings and the door is setback at least 0.5 metres from the face of the main dwelling.



Garage/ carport openings - moderate sized motor vehicles (As2800.1 - 2004 B99 vehicle)

2 A driveway and small car parking space can be provided along the front of a lot that is 7.5 metres wide (3.0m driveway + 4.5m long on-street parking space).

## Lane definition

The lane should be detailed so it reads as a lane (and not a street). Defining the lane should include consideration of:

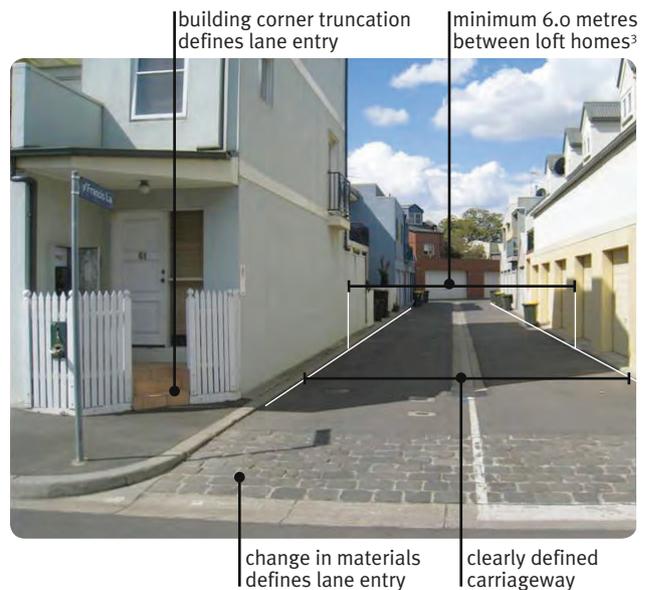
- » changing threshold treatment (height, materials, colour, reduced corner truncations)
- » providing flush kerbs to "open up" lane width
- » readily accommodate service infrastructure if it cannot otherwise be avoided eg. electricity supply
- » maintaining a minimum distance between dwellings that front the lane.

The "end" of and "entry" to the lane should be clearly defined, which may include:

- » the use of planting to define entry to an "industrial" looking lane
- » lanes with view lines open to space or landmark building and/or tree
- » mandated two-storey construction on lots at lane entry or adjoining mid block link.



A diversity of building and landscaping materials and recessed garage doors in loft homes off a rear lane (Fitzgibbon Chase)



A clearly defined rear lane with minimum separation between facing loft homes (Kensington Banks)



Mandated two storey construction at lane entry and adjoining mid block link defines entry/exit points to and from the lane (Varsity Lakes)



5.0 metre wide mid block link off rear lane provides opportunities for pedestrian and service infrastructure access, planting and lighting (Varsity Lakes)

- 3 A laneway may be as narrow as 5.0 - 5.5 metres in width. Loft apartments or dwellings on small lots fronting the lane should be setback to ensure there is at least 6.0 metres between facing buildings. Buildings should not encroach on road reserve.

Where the lane is over 140 metres in length, a mid block link with a minimum width of 5.0 metres should be provided for pedestrians and cyclists.

The front door to loft homes and dwellings on small lots which front a lane, needs to be visible from within the lane. It is not necessary that it be visible from the lane entry. Addresses within a lane should be clearly identified, including signpost (e.g. "Penny Lane"), letterbox and house number.

Where 2 storey buildings front a rear lane:

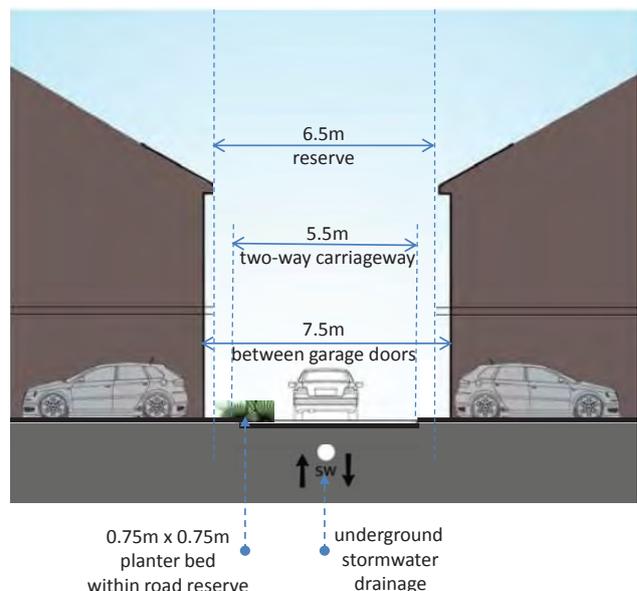
- » Loft home balconies can be opposite - 6.0 metres minimum separation
- » Detail balcony for total visual privacy up to rail height (shutters okay)
- » Double garage doors are acceptable provided they are limited in number and considered as part of the overall lanescape. In some instances articulation of double garage doors may be necessary to deliver a suitable lanescape.



A clearly defined entry to a loft home with a frontage to a rear lane ensures that all dwellings have an address (Fitzgibbon Chase)



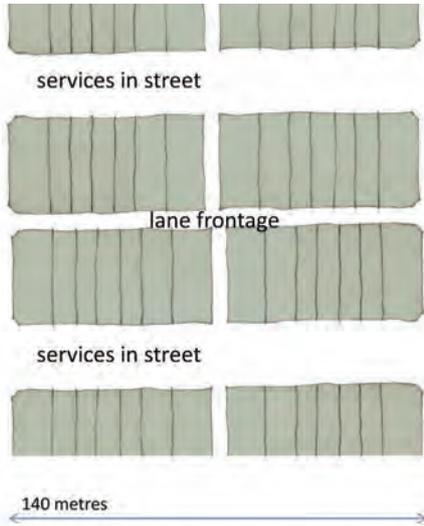
Loft homes with private balcony over double garage adds to the aesthetic treatment of the lane (Fitzgibbon Chase)



Typical rear lane cross section

## Services

Where possible, all essential services (power, water, sewer, stormwater and telecom) should be provided in the street and not in the rear lane. Typically this will require lots and lofts fronting a rear lane to be serviced from the street frontage via easements located in the side setback of the dwellings which front the street. This is typical where lots are serviced from both sides of the street and lofts fronting the lane are subject to a community title scheme.

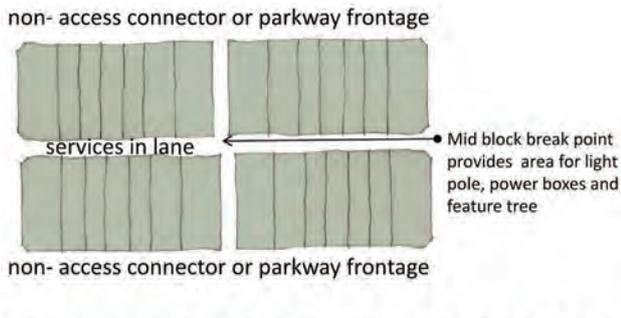


water meter in landscape strip (turf not recommended)

steel posts protect power box (green boy)

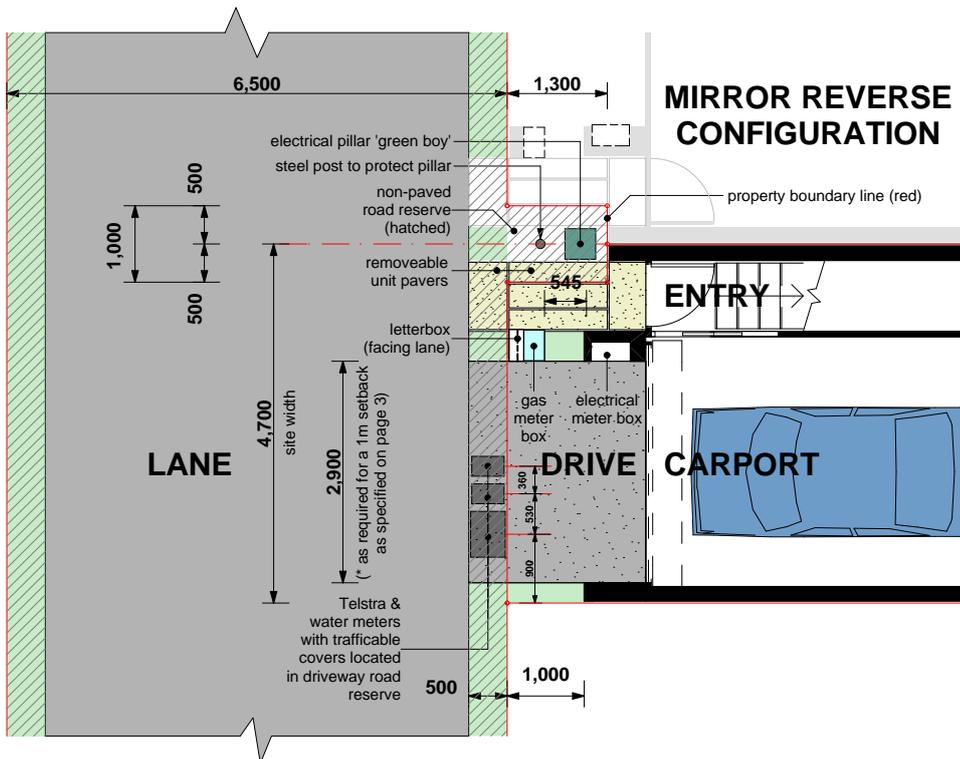
Essential services within the rear lane (Varsity Lakes)

Loft homes/lots fronting a rear lane which are proposed to be fee simple Torrens title (not subject to a community title) may require services to be provided within the lane. It is also efficient to locate services within the lane, where lots front a non-access connector street and/or parkway.



The width of the lane (road reserve) may have to be increased to 7.0 or 7.5 metres where services are to be provided within the lane. In this situation, special attention also needs to be given to locating services to ensure there is sufficient separation between underground conduits and that access points to water meters and power boxes (green boys) are available and appropriately protected.

In a 6.5 metre wide lane, a mid-block link provides opportunities for electrical connection to light poles, as well as for trees and other planting and stormwater conveyance.



Servicing a pair of loft homes off a rear lane

Street lighting poles can also be provided at the entrance to a rear lane, however this typically only lights to a distance of 25-30 metres into the lane. As such a 6.5 metre wide rear lane can be used where the lane is preferably no more than 60.0 metres long and lit at both ends. Longer lanes may require a mid block link location for street lighting.

Privately installed "trip" lighting may be considered as an alternative street lighting method where the 6.5 metre wide rear lane is longer than 60 metres, but this is not preferred.

lane lighting close to lane entry and designed to minimise nuisance to residents



centre line drainage with gully pit

Rear lane with lighting at entry and centre line drainage (Fitzgibbon Chase)

## Address

### Ensuring an appropriate address

It is imperative that each dwelling has an appropriate address for services such as Police, Ambulance, SES, Fire Brigade, and where required, Australia Post. This address may be different than the real property description (RPD). Whilst the real property description of a lot with two dwellings may relate to one street (or "Park Way") address, the dwelling fronting the rear lane should have a service/ postal address relating to the name of the lane. Number (lot) 3 Kuranda Park Way therefore includes a dwelling which fronts (number) 3 Palmerston Lane.



Palmerston Lane off Carselgrove Avenue (Fitzgibbon Chase)

### Servicing small dwellings off a rear lane

Where loft homes over garages provide off-street car parking for other dwellings, the loft apartment is typically freehold title or subject to a community management scheme and/ or volumetrically subdivided. In the illustration below, the smaller lot is freehold and not subject to a community title. One on-site car parking space is provided per dwelling. Two on-site car parking spaces are provided in tandem on the lot for the larger dwelling which fronts the street/park.

Refer to practice note no. 9 on Designing for small lots for further information. Tandem carparking provides additional on site flexibility. One or both of the spaces could be used for cars, boats or an extension of private open space.

### Small lots off rear lanes

The illustration below shows a solution for the provision of a small house on a freehold Torrens title (not subject to community titling) with a front door facing a rear lane. This solution takes advantage of the loft apartment provisions for balconies and other private open space and enables a small house to be provided on a lot with a zero building setback to all boundaries and 100 per cent site coverage.



Servicing small freehold dwellings off a rear lane (Image supplied courtesy of Ausbuild)



"Daintree Park Way" at Fitzgibbon Chase provides frontage to detached terrace houses including garages serviced via a rear lane

Where a dwelling fronts onto a park, a thin strip of road reserve including a 1.5 metre wide pathway should be provided to enable postal access to these lots. These strips of public road are typically called a "Park Way".



Legend/key

 Direct front door access to Park Way

4 metre wide road reserve for Daintree Park Way (Fitzgibbon Chase)

## Parking analysis plan

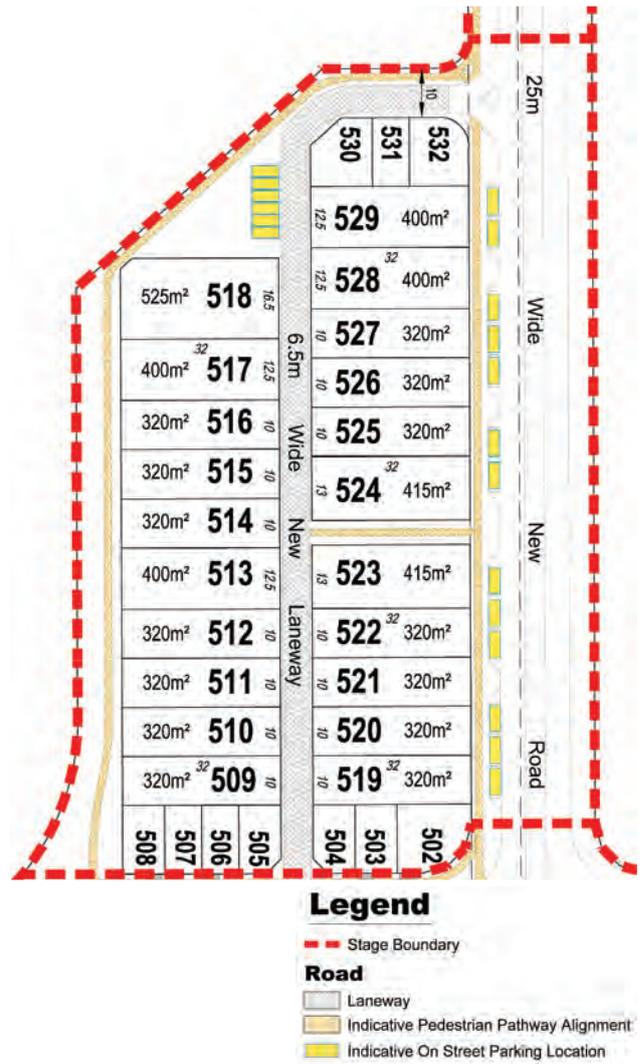
Typically loft homes can be built on any lot serviced by a rear lane. Where it is anticipated that the majority of loft apartments or other small dwellings will be built, a parking analysis plan may be required to demonstrate that the surrounding streets can accommodate sufficient on-street parking within 150 metres walking distance for visitors accessing dwellings, which front the rear lane. Typically 0.75 on-street car parking spaces are required per house<sup>1</sup>.



Tandem car parking can be provided with an open ended garage

## Bin storage and collection

Careful consideration of bin storage is needed, particularly where dwellings front a park or the lane. Bin storage should be located within the lot and not the lane, and be easily accessible, screened and well ventilated. Bins stored in driveways on lanes are an emerging issue and bin storage areas within garages are not desirable for residents. A properly designed lane will allow space for bins and garbage trucks on collection day.



Parking analysis plan shows on street visitor parking for dwellings off rear lanes (Image courtesy of RPS. Stage 7 Fitzgibbon Chase)



Inadequate on-site bin storage leads to bins being left in the lane - accessible, screened, and ventilated bin areas should be provided on each lot and not in the garage.