

# Crossover Guidelines Residential and Non-Residential

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# Crossover Guidelines Residential and Non-Residential



## 1. Introduction

A crossover is the extension of a driveway from the edge of the property boundary to the edge of the road. Its primary function is to provide access for vehicles across the verge which forms part of the road reserve.

The purpose of these Guidelines is to provide information to residents in relation to the design and construction of a crossover and should be read in conjunction with the City's specifications and standard drawings. These guidelines have been developed by the City to ensure that each crossover:

- Is of a uniform standard;
- Ensures a safe entrance and exit to the property;
- Reduces stormwater entering private property;
- Provides a safe and even surface for pedestrians;
- Reduces any negative impact on other infrastructure in the road reserve or surrounding area;
- Maintains and/or improves the streetscape.

## 2. Crossover requirements

As driveways and crossovers are connected, both are subject to the requirements of the *Residential Design Codes of Western Australia (R-Codes)* and *Residential Development Local Planning Policy*.

Where a driveway and associated crossover does not comply with these requirements, a Development Application is required for the non-compliant crossover. See section 4.2 for quick links to the relevant forms, policies and procedures.

### 2.1. Location

#### 2.1.1 Residential

There are differing requirements for residential (including grouped, multiple dwellings and Housing Opportunity Areas (HOA's)) and commercial/industrial properties, as outlined within these guidelines. For ease of reference duplexes, villas or townhouses are examples of grouped dwellings while apartments and units are cases of multiple dwellings.

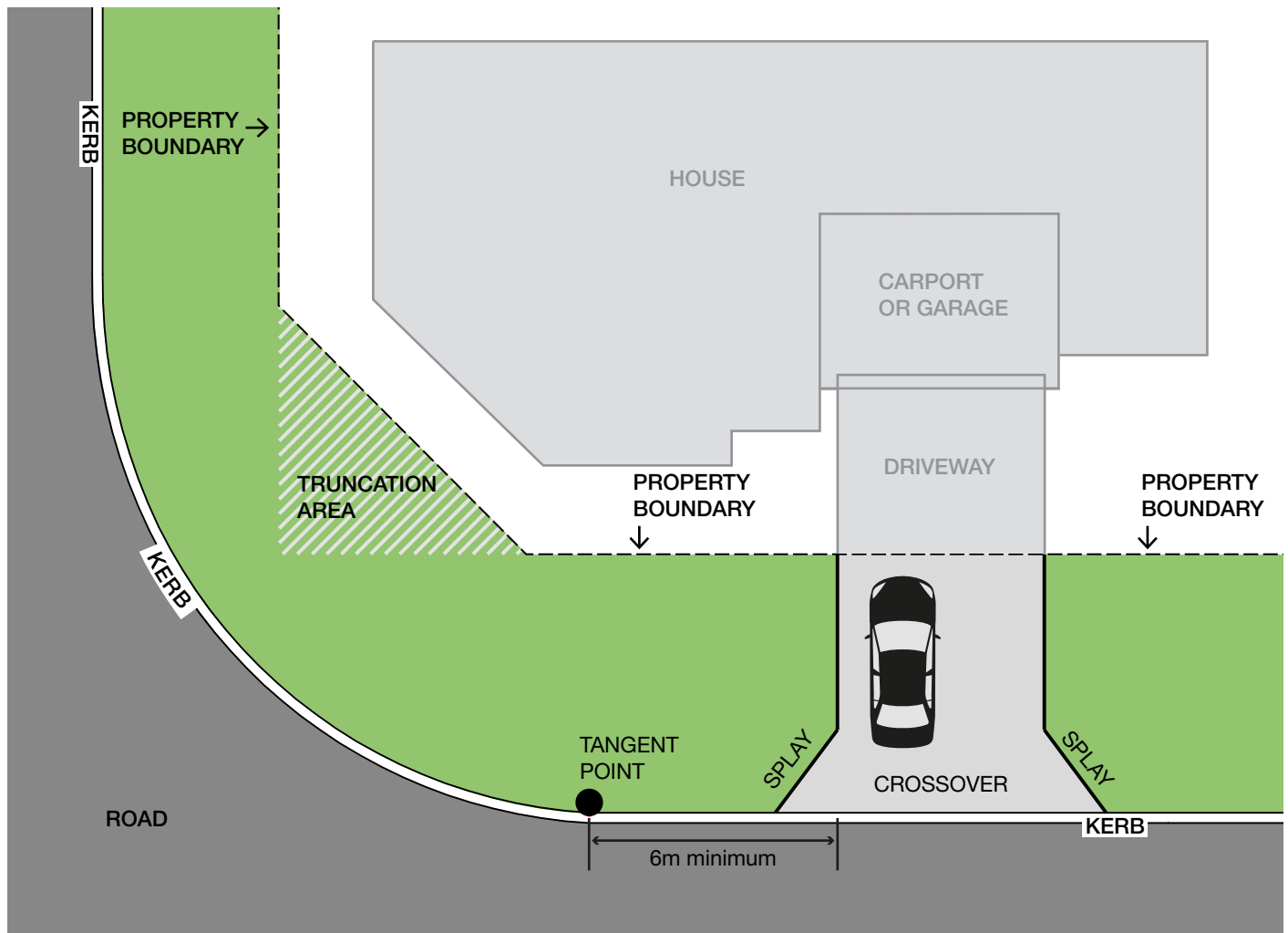


FIGURE 1: Permitted location of a residential crossover at an intersection.

# Crossover Guidelines Residential and Non-Residential

Residential driveways and crossovers (excluding splays) must be:

- i. No closer than 0.5m from a side lot boundary
- ii. No closer than 6.0m to a street corner or the point at which the kerb line begins to curve as seen in Figure 1. Crossovers and splays are not permitted within the truncation area (B in figure 1).
- iii. Aligned perpendicular to the street
- iv. Located to avoid street trees. Where unavoidable contact the City for guidance or to seek approval for relocation or removal of trees.
- v. Located at a minimum distance to the following obstructions:
  - Stormwater drainage pits, service utility boxes, street lights/power poles, kerb ramps, street trees – 1.0m
  - Bus shelters and bus stops – 1.5m
- vi. Have a sight triangle of 1.5m by 1.5m at the property boundary (as shown in Figure 2) where all fixtures are truncated or reduced to no higher than 600mm. Also applies if no existing footpath.

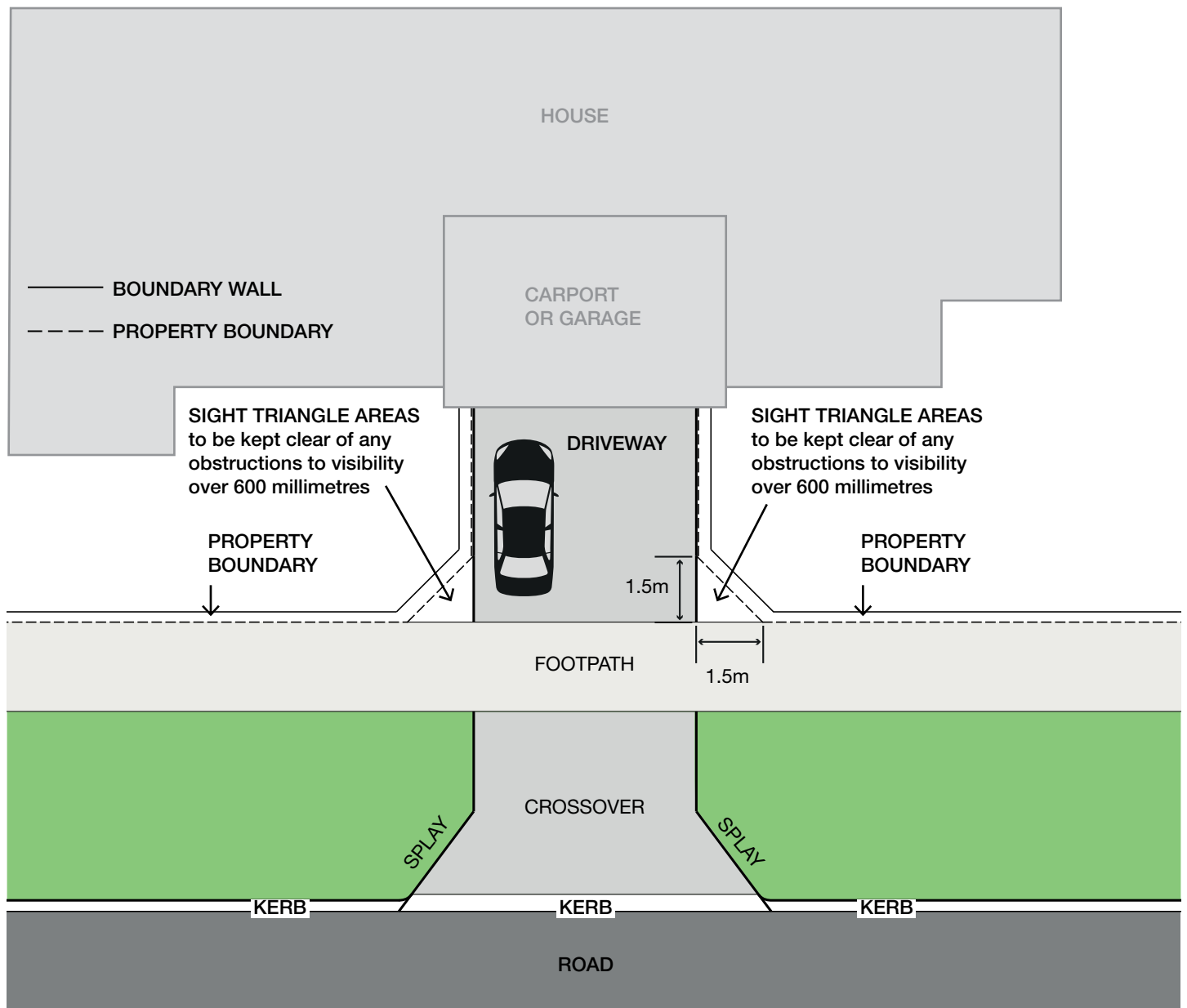


FIGURE 2: A sight triangle located at the intersection of the crossover and footpath.

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## 2.1.2. Commercial/Industrial

Commercial/Industrial driveways and crossovers (excluding splays) must be:

- i. No closer than 1.0m from a side lot boundary
- ii. Commercial/Industrial to be no closer than 25.0m to the side truncated area, contact the City for guidance if minimum offset cannot be achieved
- iii. Aligned perpendicular to the street
- iv. Located to avoid street trees. Where unavoidable contact the City for guidance or to seek approval for relocation or removal of trees

v. Located at a minimum distance to the following obstructions:

- Stormwater Drainage pits, service utility boxes, street lights/power poles, kerb ramps, street trees – 1.0m
- Bus shelters and Bus stops – 1.5m

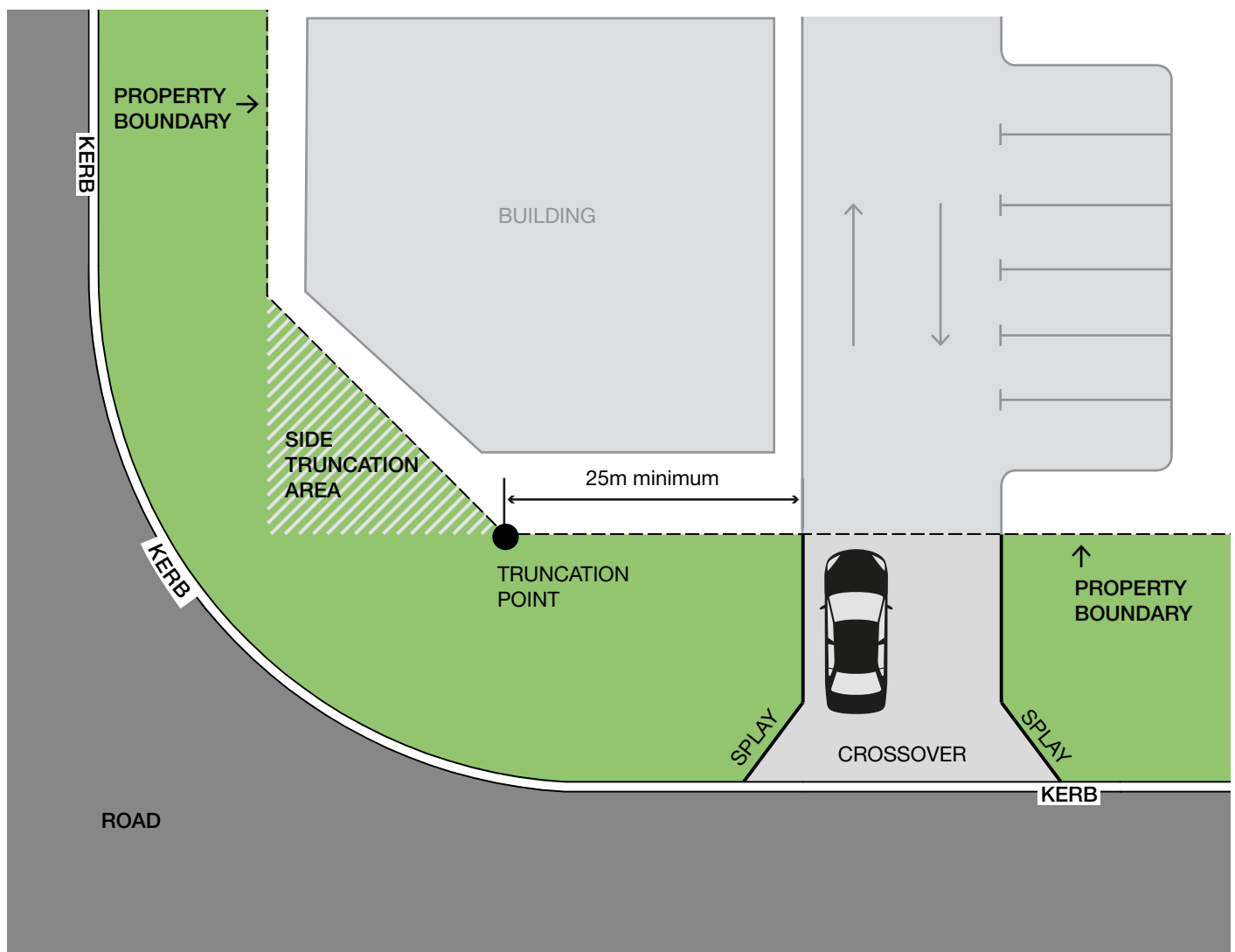


FIGURE 3: Permitted location of a commercial/industrial crossover at an intersection.



## 2.2. Crossover Dimensions

**Note:** All crossover width dimensions are excluding splays

### 2.2.1. Residential - Single dwelling and up to four grouped dwellings

The minimum width of a single crossover is 3.0m and the maximum width is 6.0m. Two crossovers are permitted on the basis that the combined width of both crossovers is no wider than 9.0m.

### 2.2.2. Residential - Five or more multiple or group dwellings

Only one crossover is permitted to serve multiple or grouped dwellings and must be between 4.0m and 6.0m in width.

### 2.2.3. Commercial/Industrial

Crossovers servicing commercial or industrial precincts must be between 6.0m and 10.0m in width.

### 2.2.4. Housing opportunity areas (HOAs)

The City has 10 HOAs. Crossovers within these areas are subject to different planning and crossover requirements. Further information on locations, etc for HOAs can be found on the City's website.

For new single dwellings located within HOA's, a crossover servicing this dwelling can only be 3.0m in width.

For between two and four dwellings within HOA's, the crossover dimensions are to be as per section 2.2.1 and for five or more multiple or grouped dwellings as per section 2.2.2.

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## 2.3. Splay Dimensions

### 2.3.1. Residential Splays

Residential splay dimensions are as the below table:

Crossover Width	3.0m	3.0m - 4.0m	4.0m - 5.0m	6.0m
Splay Length	3.0m	2.5m	2.0m	1.5m
Splay Width	2.0m	2.0m	1.5m	1.0m

**TABLE 1:** Splay dimensions.

**Please note:** For crossovers 6.0m wide, splays are not required for residential properties. Splay widths must not encroach into the adjacent property verge area and dimensions in Table 1 can be reduced to fit the available space. Figure 4 provides an example of splay dimensions.

### 2.3.2. Commercial/Industrial Splays

Commercial/industrial crossovers are to have a splay width of 2.1m and a splay length of 2.1m.

## 2.4. Crossover Materials

### 2.4.1. Residential Crossover Materials

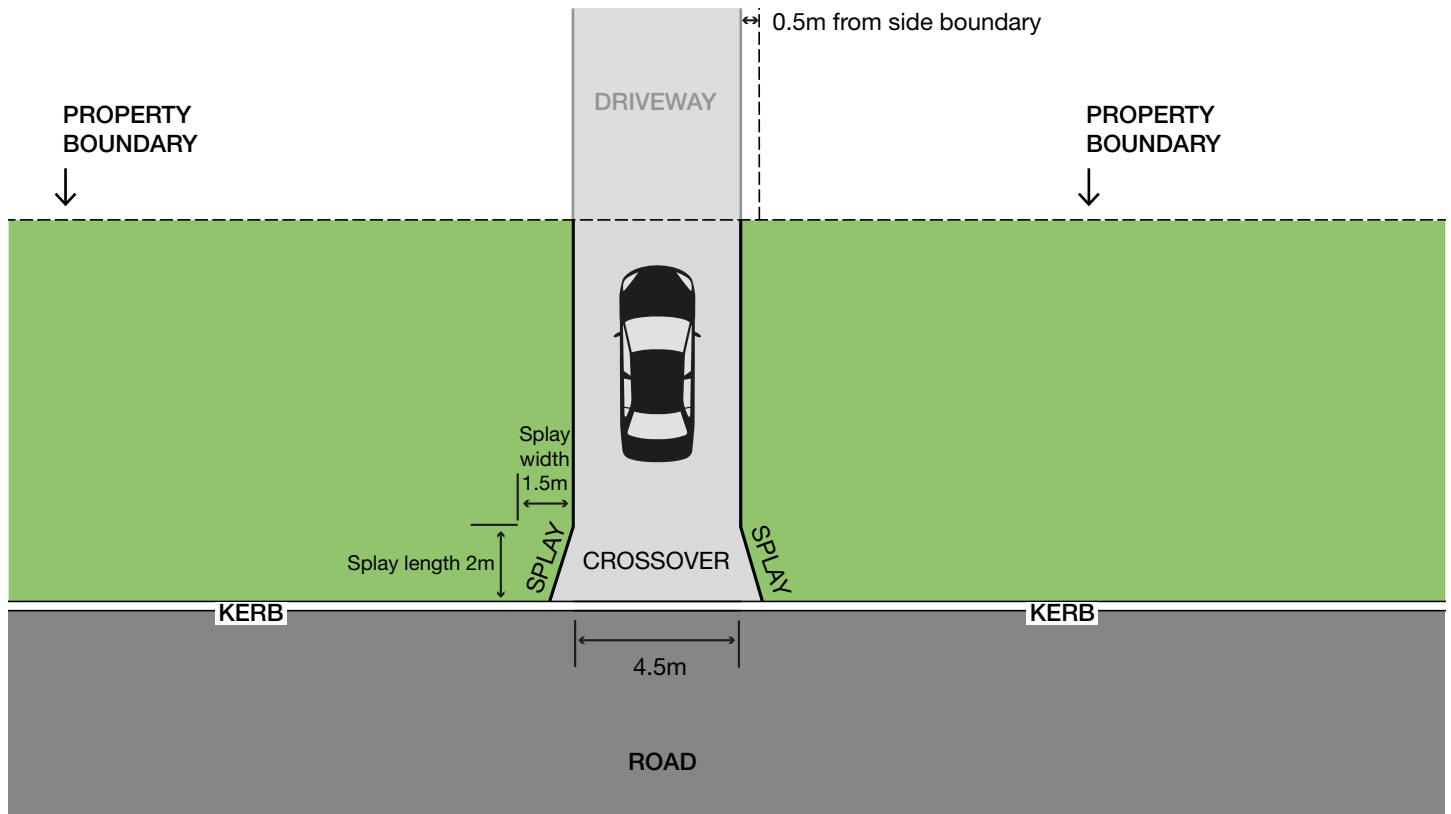
Crossovers may be constructed using the following materials:

- Grey pre-mix concrete
- Colour incorporated concrete such as exposed aggregate or coloured concrete surface treatments
- Segmented or square clay/concrete pavers
- Flagstone and products such as formstone or Urbanstone.

The following is not allowed:

- Asphalt/hot mix/bitumen seal/black top
- Gravel
- Crushed bricks
- Compacted limestone
- Loose stone.

**Please Note:** Concrete crossover aprons or kerbs are only to be constructed in grey pre-mix concrete and not exposed aggregate or coloured concrete.



**FIGURE 4:** Example of a 4.5m wide residential crossover.





**FIGURE 5:** Crossovers constructed with continuous footpaths.

## 2.4.2. Commercial/Industrial Crossover Material

Crossovers may be constructed using the following materials:

- Grey pre-mix concrete with F63 reinforcement mesh as a minimum located centrally within the depth of concrete.
- Colour incorporated concrete such as exposed aggregate or coloured concrete surface treatments with mesh requirements as above.
- Segmented or square clay/concrete pavers.
- Black asphalt (AC10) – or equivalent.

The following is not allowed:

- Gravel
- Crushed bricks
- Compacted limestone
- Loose stones.

## 2.5. Existing infrastructure

### 2.5.1. Footpath and Kerbing Infrastructure

The City's existing footpath infrastructure must remain continuous in concrete through the crossover as shown in Figure 5. The removal of footpaths is not permitted for residential crossovers. Where an existing concrete footpath has thickness of 100mm or more, is in good condition, and adjacent to the lot boundary or kerb line, the crossover shall be constructed either side of the concrete footpath.

Crossovers are required to have mountable kerbing or apron kerbing to separate the crossover from the carriageway. Please contact the City for requests to modify or remove existing kerbing. In situations where the kerb profile is too high or unsuitable for vehicles to navigate, the City will, upon request, install a low profile trafficable kerb at the property owners expense.

Where the existing footpath is against the back of the roadside kerb, the section of footpath that intersects with the new crossover must be reconstructed (works completed by the City) to incorporate the splays at the property owners expense.

## 2.5.2. Other infrastructure

For crossovers located close to traffic lights, property owners must seek approval from Main Roads WA. **The Main Roads WA Guide to Road Design** provides information on requirements.

The City's infrastructure such as stormwater drainage pits and traffic median islands will not be relocated or modified. The property owner may request the City to modify drainage manholes so that they may become trafficable but this will be at the property owners expense.

## 2.6. Levels and grades

New crossover levels must follow the existing verge levels with any excavation or fill to be less than 150mm.

The verge requires a two percent positive grade over a distance of two-and-a-half metres from the back of the kerb in order to:

- Facilitate stormwater runoff
- Prevent water collecting on verges or handstand areas such as footpaths and crossovers
- Prevent potential safety hazards
- Prevent water from the road reserve entering property which may lead to flooding.

Where difficulties are encountered onsite and levels or slopes cannot be achieved, the applicant should contact the City for further advice.

## 2.7. Redundant crossovers

A redundant crossover is any crossover that does not provide access to a property, garage or carport.

The redundant crossover is to be removed by the property owner immediately after the new crossover comes into use. Additionally, any reinstatement works of the City's infrastructure such as footpaths and road kerbing is to be carried out by the City at the property owner's expense.

The depression created on the verge by the removal of the redundant crossover is also the responsibility of the property owner or their contractor and is to be backfilled to match the existing verge and comply with the City of Joondalup's **Street Verge Guidelines**.

## 2.8. Responsibilities and liability

It is the responsibility of the property owner to ensure that the works carried out by their contractor is undertaken in a manner that City owned infrastructure (kerbing, bitumen road surface, etc) is maintained to a good condition. Any repair works or reinstatement works to City owned infrastructure will be undertaken by the City at the property owner's cost.

## 2.9. Contributions

If it is a first crossing constructed on the property or is the replacement of a bitumen crossover to concrete or brick paving material, the City may contribute towards the cost. The Subsidy Payment form for First/Replacement of Vehicle Crossings can be found on the City's website and is required to be completed once the works have been carried out. Application for a subsidy payment must be made on the prescribed form within 6 months of the date it was constructed and is to be accompanied by proof of pavement (invoice or delivery docket).

**Please Note:** The crossover subsidy is a one-off contribution and is subject to the conditions above. The rebate payment will be provided once the application form has been approved and the crossover is deemed to be compliant.

## 3. Further information

### 3.1. Contacts

All matters related to crossovers, including design and/or location difficulties, requests for further information or clarification, application forms for permits, subsidies, notification for inspections and as otherwise described in this document, should be directed to the City's Infrastructure Services Customer Relations team on **9400 4255**.

Additionally, you may contact the City via email on [info@joondalup.wa.gov.au](mailto:info@joondalup.wa.gov.au)

### 3.2. Document Links

**City of Joondalup Street Tree Management Guidelines**

**City of Joondalup Street Verge Guidelines**

WALGA Guidelines and Specifications for Residential Crossovers

**Main Roads WA Guide to Road Design**

**Residential Development Local Planning Policy**

Specifications – Brick paved crossovers

Specifications – Concrete crossovers

Specifications – Commercial or industrial crossovers

Standard drawings

**Housing Opportunity Areas – Maps**

**Development Assessment and Application Forms**

**Crossover Subsidy Payment Form**



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*This document is available in alternate formats upon request.*