City of Rockingham

Residential Crossover Specifications

Asset Services

Subsidy Available

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city of Rockingham

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1.

General

a) These specifications are made pursuant to the provisions of Schedule 9.1, clause 7(2) of the *Local Government Act 1995* and Regulation 12 of the *Local Government (Uniform Local Provisions) Regulations 1996*.

b) For the purpose of this document, any reference made to the construction of a crossover also refers to the replacement, upgrade, modification or maintenance of a crossover. Where any existing crossover is replaced, upgraded or modified, it shall be done so in accordance with these specifications.

c) To satisfy the regulations, upon the construction or redevelopment of a dwelling, the property owner shall construct a crossover that complies with these specifications. Any deviation from these specifications will require a separate written approval from the City prior to commencement.

d) Non-compliant crossovers, including those constructed using inferior or non-approved materials, shall be liable to rejection or replacement without compensation. The City may instruct a property owner to rectify at their own cost, or the City may rectify on their behalf and recover the costs from them. Where the City has to undertake cost recovery, additional administration fees shall apply.

e) A safe work area shall be provided at all times during the crossover construction. See Section 9.

f) Any damage to City assets or other property during, or as a result of, the construction, replacement, upgrade or maintenance of a crossover is the sole responsibility of the adjoining property owner, who bears all liability for costs and responsibilities for the repair, reinstatement or replacement of the damaged assets/property.

g) A crossover that does not comply with this specification will not be eligible for the City's subsidy (see Section 13) towards the cost of construction.

h) If there are physical constraints on the verge, whether natural or constructed that place limitations on being able to comply with these specifications, please contact the City for advice and assistance. In these circumstances, the City reserves the right to grant, or not grant, deviations to these specifications by written approval.

i) A crossover must:

- have a minimum clearance of 1,000 mm (1 m) from any street furniture, crossing points or utility asset, including drainage or utility infrastructure, bus stops, pram ramps, street lights and power poles
- have a minimum clearance of 3,000 mm (3 m) from any street trees. Removal or relocation of street trees is not permitted.

j) The City identifies the importance of protecting all existing assets and infrastructure and undertakes regular inspections, following up non-compliance.

2.

Footpaths

a) **An existing footpath must not be removed.** Where a footpath exists, the cross-over must 'tie in' with the existing footpath and height levels. If the footpath does not abut the kerb line at the road, the crossover is to be constructed either side of it.

This ensures that, to protect the safety of pedestrians, the visual and physical continuity of the concrete footpath is maintained **through** the crossover.

b) Any section of existing footpath which is damaged and/or removed during the construction of a crossover shall be reinstated to the nearest expansion joint, with in-situ concrete as per the City's 'Footpath and Pram Ramp Specifications'. Expansion material must be placed between a concrete crossover and the footpath.

3.

Verge Levels and Pedestrian Access

a) The crossover shall be constructed to the existing verge grade.

b) The crossover shall be constructed so as not to pose a hazard or obstruction to pedestrian access.

c) If verge heights are altered and the crossover poses a hazard to passing pedestrians, remedial works will need to be undertaken at the property owner's expense.

4.

Alignment and Profile

a) All crossovers shall be at right angles to the roadway kerb line.

b) With the exception of the wings, where possible a crossover shall not be constructed any closer than 6,000 mm (6 m) from the point at which the kerb begins to curve for an intersection or bend (called the *transition point*) – See Figure 1 'Crossover Placement at Intersection' (this excludes cul-de-sacs, see Figure 2 'Residential Crossover at Cul-De-Sac').

c) Crossover wings are to be no more than 1,500 mm (1.5 m) and no less than 1,000 mm (1 m). No portion of a wing is to extend beyond the side boundary alignment of the property it serves.

d) The crossover must be 75 mm higher where it meets the private property boundary than where it meets the kerb/bull nose lip meets the road, to ensure rainfall flows down to the road and drainage systems.

e) At the private property boundary, the crossover shall have a minimum width of 2,800 mm (2.8 m) or a maximum width of 7,000 mm (7 m).

f) At the kerb line, the crossover, including wing span, shall have a minimum width of 4,800 mm (4.8 m) or a maximum width of 10,000 mm (10 m).

g) The minimum width of the crossover when measured 1,500 mm (1.5 m) back from the kerb where the wings end, shall be 2,800 mm (2.8 m) and a maximum width of 7,000 mm (7 m).

Key

- **TP:** Transition Point
- **Crossover** shall be located between property side boundary and at 6 m offset from 'TP' Transition Point.
- **Property boundary**

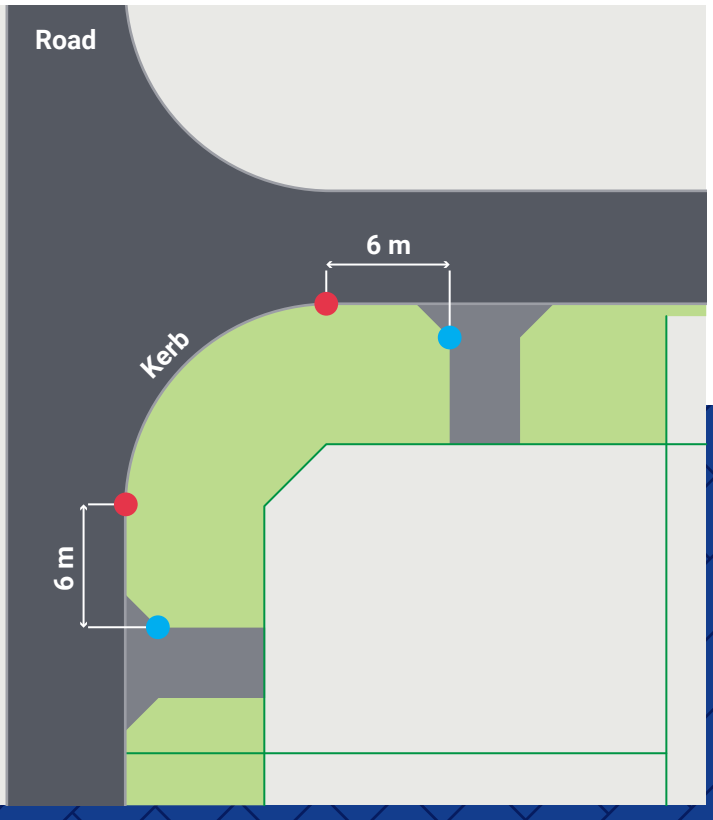

Figure 1: Crossover Placement at Intersection

5.

Cul-de-sac

A crossover location will align with the elongated property boundary line following the methodology of centre point to property boundary, in keeping with a 90 degree angle to the kerb line. See Figure 2 'Residential Crossover at Cul-De-Sac'.

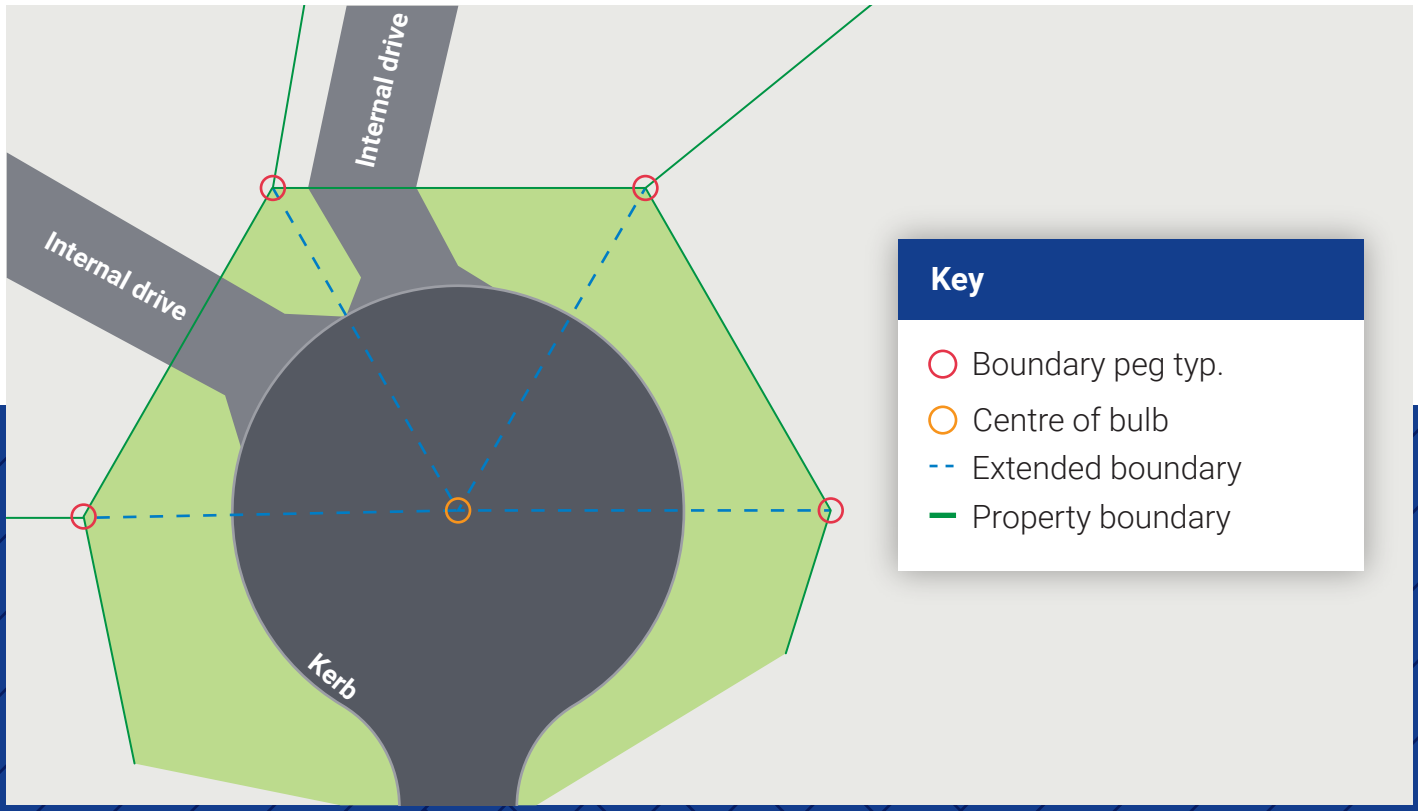

Figure 2: Residential Crossover at Cul-De-Sac

6.

Brick/Block/Porous Paving Construction

a) Sub-grade formation and sand compaction

The existing ground shall be boxed out and shaped to the required dimensions and levels, allowing for bedding material on top. The bedding material must be well graded bricklayers concreting sand which when compacted, will have a uniform thickness of 30 mm. Any organic or hazardous material shall be removed from the sub-grade.

The sub grade should be wet down and compacted using overlapping passes of a vibrating plate compactor. It should then be screeded flat to provide a level and firm base.

b) Kerbing

Any in-situ barrier and semi mountable kerbing where the crossover meets the road carriageway must be removed and replaced with mountable kerbing. The sides of the crossover must then be blended in with the remaining kerbing either side.

c) Paving bricks/blocks

All paving bricks/blocks used shall be full depth matching solid units. Half bricks or brick splits are not permissible. All paving bricks/blocks shall have a minimum thickness of 60 mm and/or a minimum characteristic breaking load of 5 kn.

d) Laying paving bricks/blocks

Paving bricks/blocks shall be placed in a continual interlocking pattern and maintain straight alignment, with approximately 2 mm gaps between adjacent units. Gaps at the crossover edge adjacent to the edge restraints are to be neatly filled by cutting bricks/blocks to size with a diamond blade drop saw. Gaps at the back of the kerb must not exceed 10 mm.

e) Edge restraint

An in-situ concrete edge restraint must be installed to prevent the lateral movement of paving bricks/blocks and is required on perimeter of all paved areas.

f) Joint filling and compaction

Joint filling shall be washed single sized sand (beach sand is acceptable) and be broomed into all joints prior to compacting. After sand application, the paving shall be immediately compacted with three overlapping passes of a vibrating plate compactor. Sand can again be broomed into all joints and any excess is to be removed. See Figure 4 'Brick Paved Crossover'.

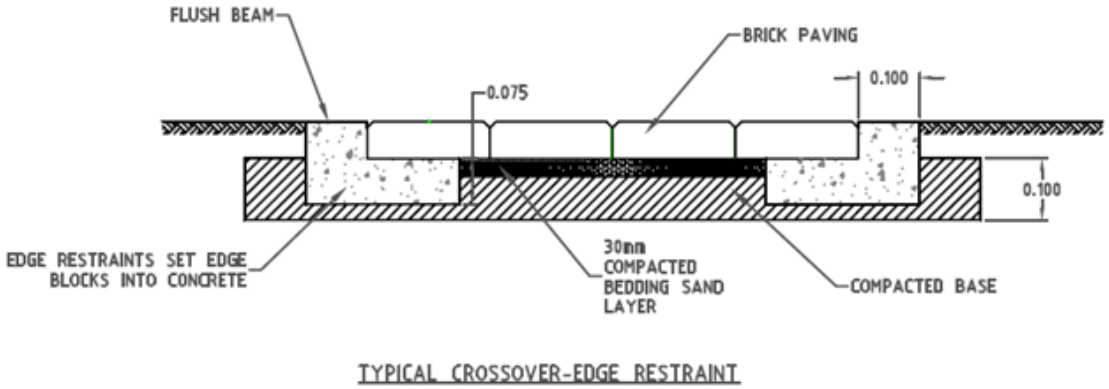

Figure 3: Crossover Edge Restraint

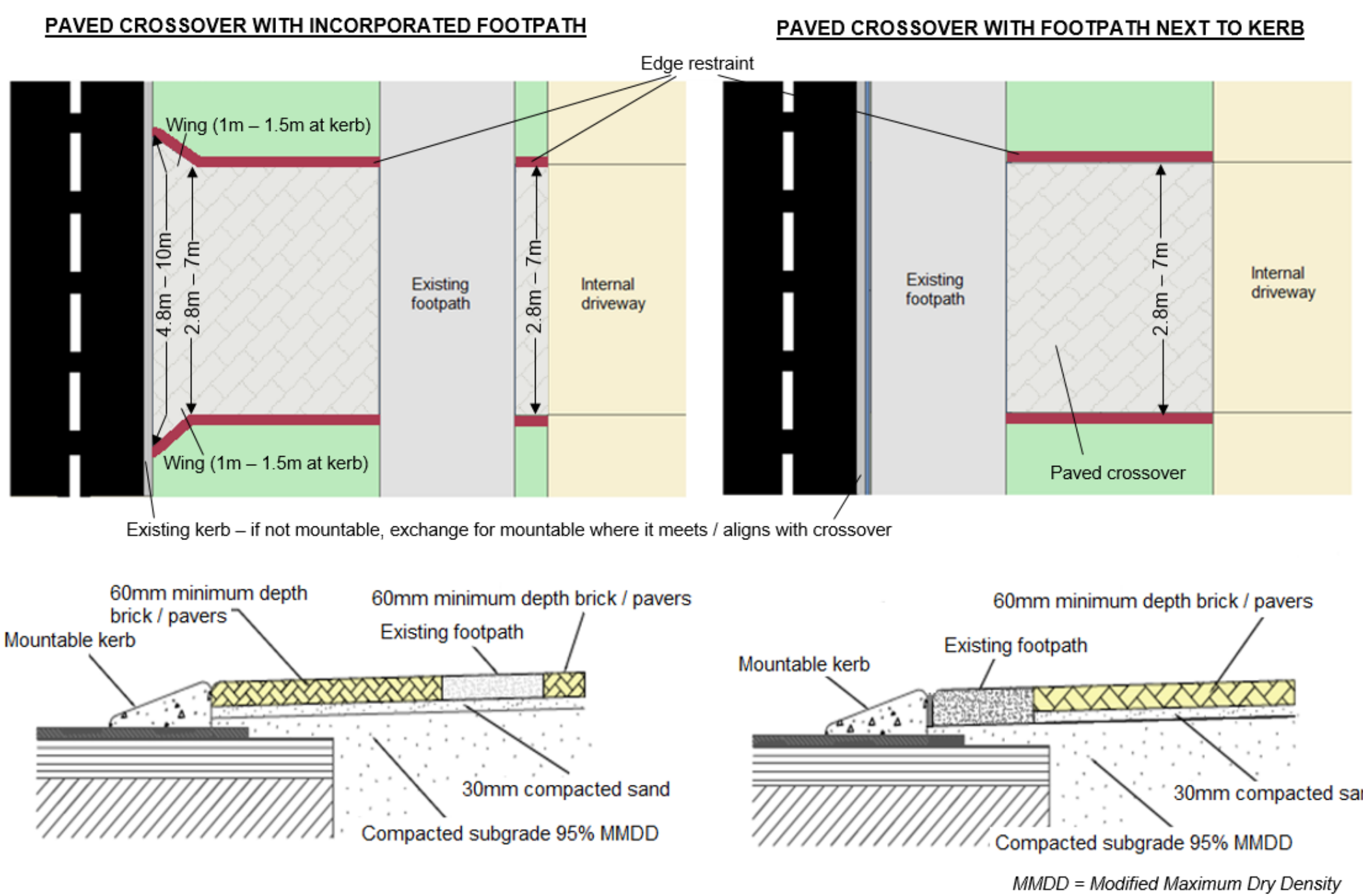

Figure 4: Brick Paved Crossover

7.

Concrete Construction

a) Sub-grade formation and compaction

The existing ground shall be boxed out and shaped to the required dimensions and levels to give a minimum depth of 100 mm of concrete pavement. See Figure 7 'Concrete Crossover'.

The sub-grade shall be wet down and compacted using overlapping passes with a vibrating plate compactor. The excavation shall be made to provide a firm and level base, free from any organic and hazardous materials.

b) Kerbing

Any existing mountable kerbing is to be retained. Any in-situ barrier and semi mountable kerbing where the crossover meets the road carriageway must be removed using a concrete cutting saw and be replaced with mountable kerbing, blended in with the remaining kerbing either side.

If a concrete apron is preferred to replacing non-mountable kerbing with mountable, it must have a bull nose lip which sits 25 mm above the road level, 100 mm below the bottom of the concrete depth, and be 'keyed' in at least 150 mm behind it with an expansion joint placed between the lip and the road. See Figure 5 'Concrete Apron'.

The apron is to be blended in with kerbing either side, with a minimum 500 mm – 1,000 mm (1 m) transition allowance.

c) Concrete specifications

Premix concrete shall comply with the requirements of Australian Standard 1379-2007 (or as amended). All concrete used shall develop a **minimum compressive strength of 25 MPa (MegaPascals) at 28 days** and shall be composed of a mixture of aggregate, sand and cement to give the strength specified with a **maximum slump of 80 mm.** A minimum allowable aggregate size for crossovers is 10 mm.

d) Placing concrete

The base shall be thoroughly and evenly moistened prior to placing concrete. Concrete shall be evenly placed to a minimum depth of 100 mm and shovelled into position continuously, especially at all edges to ensure maximum density. There shall be no break in operations from the commencement of placement to the end.

e) Finishing

The finishing shall be obtained by screeding to the correct levels and finished to match any existing concrete surface, and to provide a non-slip, dense surface free of any depressions, marks, honeycomb sections or accumulation of fine dust particles liable to cause excessive surface wear. A broom or wood float finish is preferred. Exposed aggregate finish is permitted. A steel trowel finish is not permitted.

The final surface finish shall be to the satisfaction of the City's authorised Officers, who shall reserve the right to require removal or correction of any surface deficiencies or finish.

f) Construction and expansion joints

Construction joints shall be made in the form of plain dummy joints or fracture joints, be 10 mm deep and finished with an approved jointing tool.

Expansion joints shall be full depth joints 10 mm wide and filled with approved material. These shall be located at the property line, at the back of kerb line and wherever kerbing is keyed in to new concrete construction, including all edging to existing footpaths, across the entire span of the crossover.

Approved materials for expansion joints shall be such that when it is subject to compression in hot weather, no concrete is extruded. Any approved Australian Standard material will be acceptable.

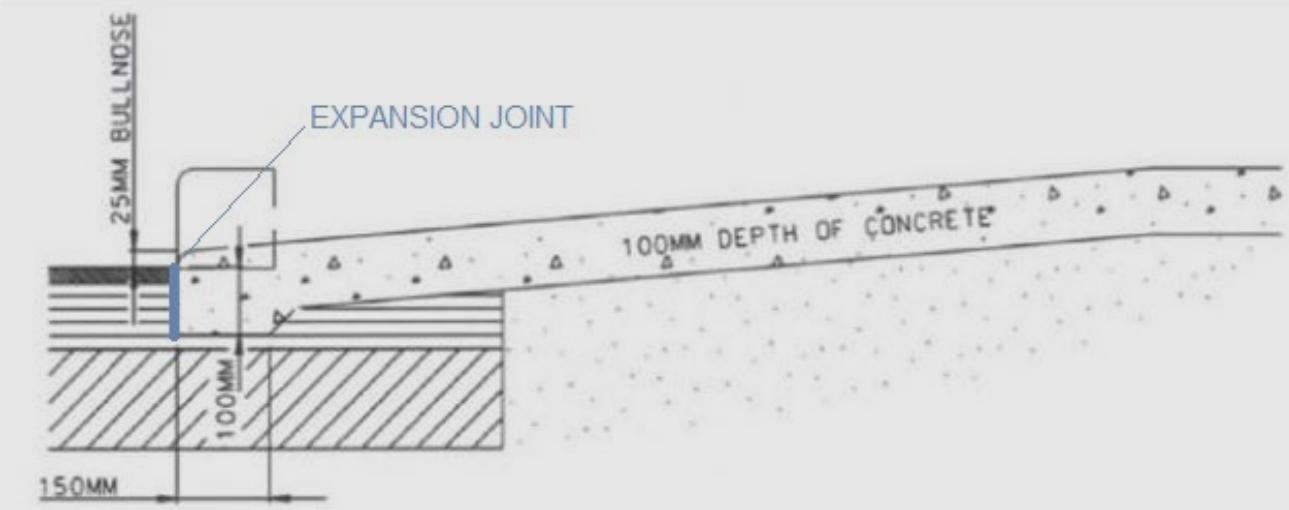

Figure 5: Concrete Apron

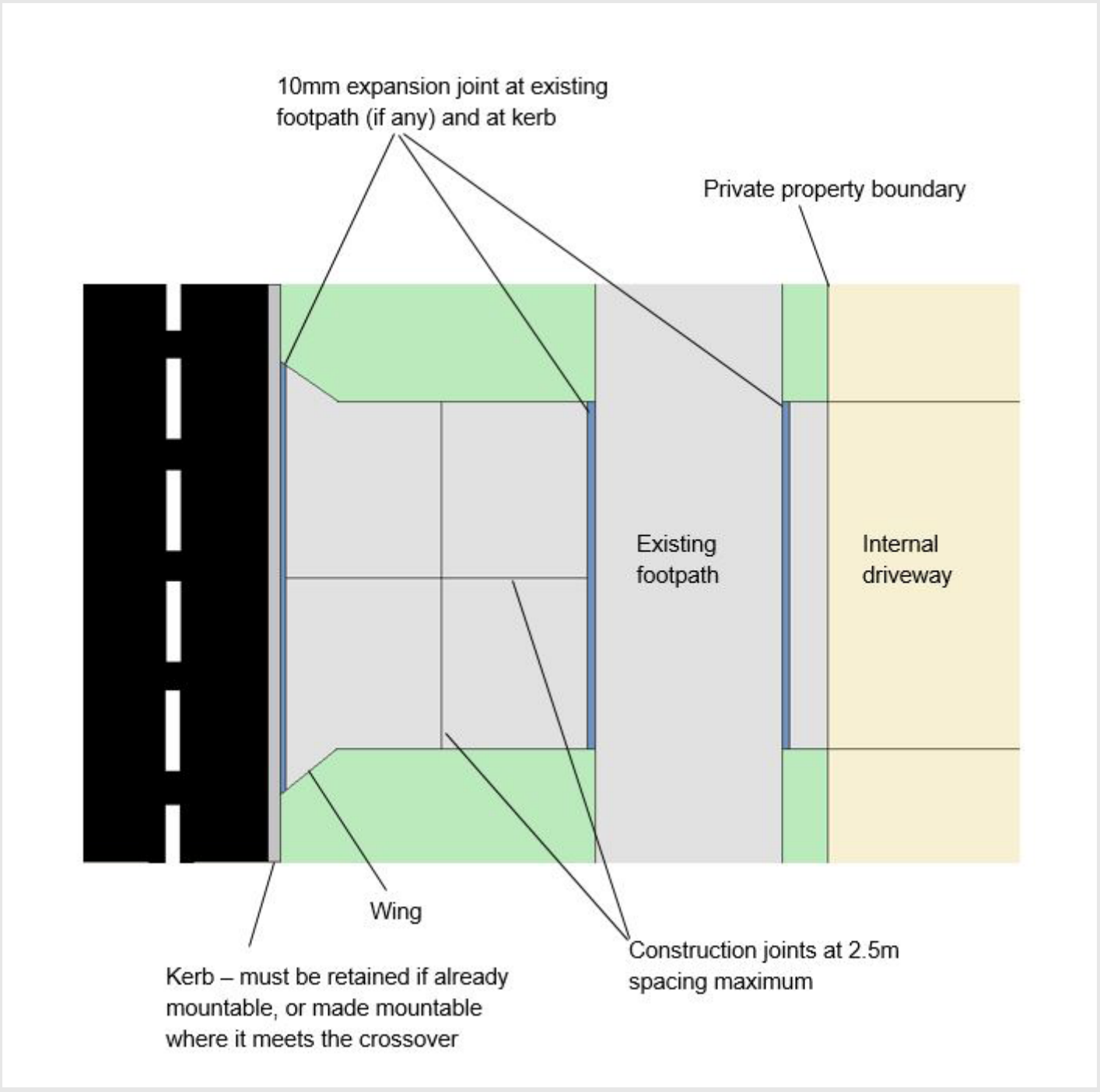

Figure 6: Expansion/Construction Joint Placement and Location of Crossover

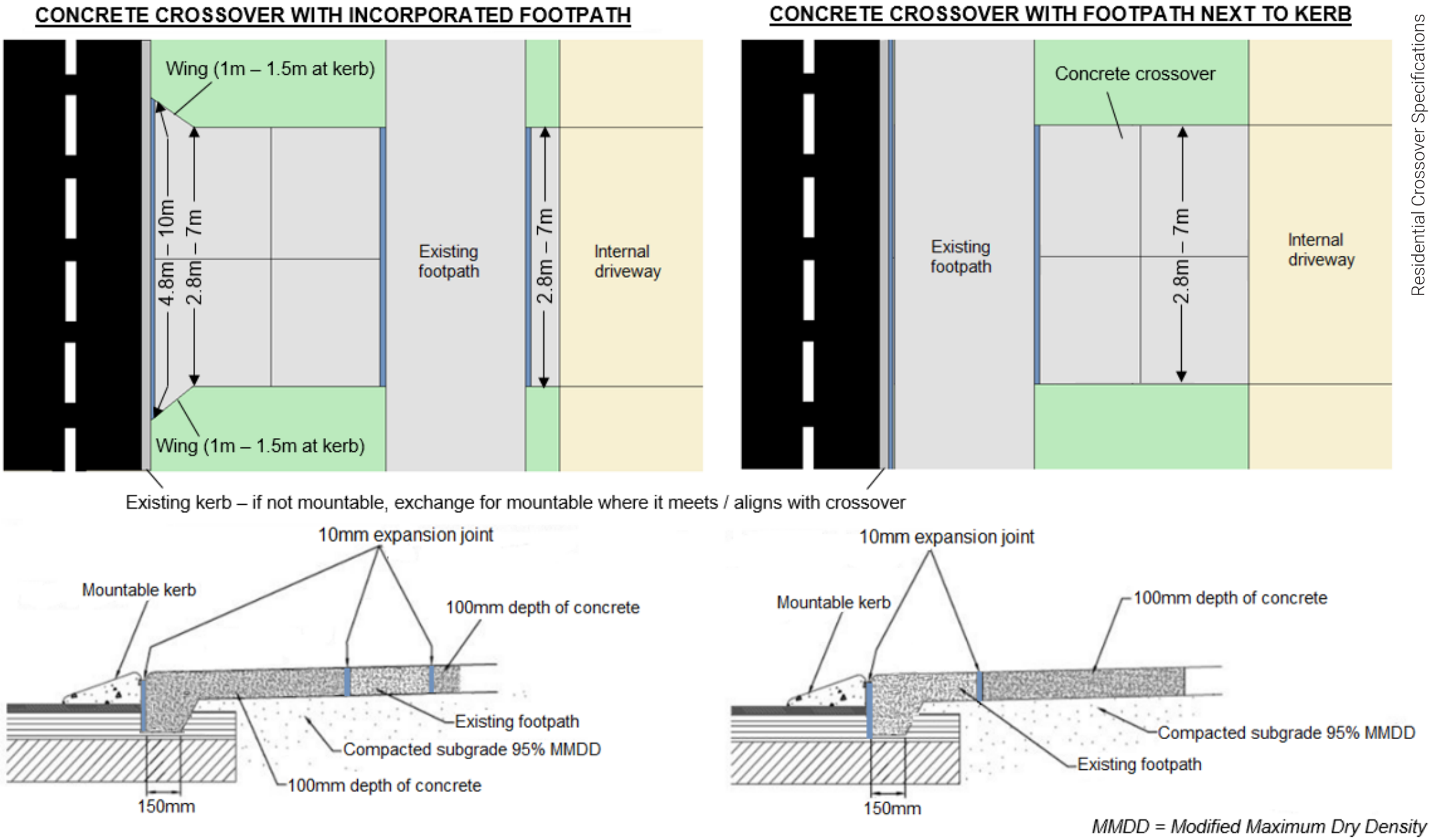

Figure 7: Concrete Crossover

8.

Completion

On completion the site is to be left in a clean and tidy condition. All crossover edges must be back-filled with clean sand or top soil and level with the existing verge height. All surplus material, including kerbing and footpath panels, must be removed from site.

9.

Property Owner Responsibilities

a) A safe work area shall be provided at all times during the crossover construction, ensuring a clear and even 1,200 mm (1.2 m) unobstructed pedestrian route past the site for the duration of the works, and the provision of all necessary signage, barricades and road safety equipment. The site must be kept free of any hazardous materials and any obstructions or excavations that present a risk to public safety.

b) After concrete has been poured, the finished surface must be protected from rain, vehicular and pedestrian traffic, and vandalism, for a period of 24 hours.

c) The property owner is to arrange repairs and reinstatements to the verge and any other City assets, neighbouring private property or public utilities damaged during the course of works. It is recommended that a Before You Dig Australia enquiry be made prior to the commencement of works to help locate assets in the verge.

d) Concrete spillage must be totally removed from the road surface.

e) Under no circumstances are any materials to be disposed of via the City's drainage system. This will result in cost recovery action for clearing of the drain and any other associated rectifications required.

f) The property owner is responsible for the actions of any third parties they engage to undertake the works on their behalf. Any disputes that arise as a result of the engagement shall be between the property owner and the third party to resolve.

10.

Other Materials

Construction of crossovers with materials other than bricks, blocks/porous paving or in situ concrete will only be considered for rural and commercial properties and must have prior written approval from the City.

11.

Additional Crossover

a) A second crossover to a single lot is permissible where a minimum frontage of 20 m is achieved.

b) A second crossover is included within the Verge Development allowance of treatment in approved materials, not exceeding 50% of the verge area, or 10 sq m (m^2), whichever is greater.

c) A second crossover will require written City approval prior to construction. Applications including a proposed plan/ sketch can be submitted to **customer@rockingham.wa.gov.au**

d) A second crossover must be constructed in the same manner as a primary crossover as per this specification.

e) A maximum of two crossovers are allowed to one single property, unless allowed by the City with written approval.

f) A second crossover is not eligible for a City subsidy. See Section 13(d).

12.

Important Notes

a) Public Utility Infrastructure – should there be any requirement for the relocation of public utility assets to accommodate a crossover, the owner, or their agent, is responsible to liaise directly with the relevant authority to request and undertake such work, at their own cost.

b) Where a new crossover is constructed and an old crossover becomes redundant, the old crossover must be removed and the verge and kerb reinstated to match the existing verge and kerb type, as per this specification.

c) Any special requirement placed on the construction or location of a crossover by an Officer of the City, must be adhered to.

d) All future maintenance and repair of crossovers shall be the responsibility of the property owner to the satisfaction of City. Whilst constructed on public land, the crossover itself remains the property of the adjoining property owner, and is their responsibility to maintain.

e) Rural crossovers requiring a culvert to be installed shall comprise of 300 mm class 2 concrete pipe or an equivalent diameter and sewer grade SN10 or above. Maintenance of the culvert, and 1 m distance upstream and downstream, is the responsibility of the owner.

13.

City Subsidy/Contribution
(Residential Crossover Subsidy Application)

a) On completion of a crossover, a written application for a subsidy can be made by submitting an 'Application for Residential Crossover Subsidy' form. Evidence in the form of a builders' completion letter, or contractor delivery/supply docket stating strength, quantity and form of material **must** be attached to the application. Applications without relevant evidence cannot be accepted.

b) A 50% subsidy will be paid for a crossover at 3.5 m x the length from the kerb to the private boundary line, at a sq metre (m^2), rate determined by the City, reviewed annually in line with inflation. If there is a footpath in front of the property, the footpath will be deducted from the measurements.

Example: A compliant crossover is built that is 5 m wide along the kerb (not including the wings), with a length of 4.4 m between the kerb and the invisible private property boundary, constructed at a cost of $1,000.

If the City's current rate paid is $50 per m^2, the City will reimburse the owner for $385 calculated at ((3.5 m x 4.4 m = 15.4 m^2) x $50) / 2 = $385

c) The subsidy will only be granted for compliant crossovers constructed with approved materials to this specification or those with written City approval.

d) Only the primary (one) crossover per lot will be eligible for the subsidy by the City and application must be made by the property owner. Properties of duplex zoning or greater, may be eligible for a City contribution to each crossover servicing a residence, or group of residences. Strata companies may apply on behalf of property owners with evidence of each owner's approval for their claim.

Please contact Asset Services on 9528 0333 or customer@rockingham.wa.gov.au for assistance and/or approvals.

Director Asset Services
February 2024