

SPECIFICATION FOR THE CONSTRUCTION OF RESIDENTIAL CROSSOVERS



1. GENERAL

- a) The specification is 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 (Uniformed Local Provisions) Regulations 1996.
- b) The construction of crossovers shall be executed under the supervision of and to the direction of the Manager Engineering Services or their nominated representative.
- c) All materials used in the construction of crossovers shall be in accordance with the Council's standard specification and any materials used which are inferior to those specified or as directed by the Manager Engineering Services shall be liable to rejection or replacement without any payment or compensation being made to the contractor.
- d) Protection of works and the public shall be provided by the contractor who shall supply and keep supplied as directed all necessary signs, barricades, road warning lamps etc.
- e) Any damage which may occur to any Council facilities or private property during the course of the works or which may subsequently become evident from the operations thereof, shall be the sole responsibility of the contractor who shall be held responsible for the repair, replacement, legal claims, liability or any other thing which may arise from the carrying out of any such works.
- f) The Manager Engineering Services reserves the right to order the alteration or removal of any constructed crossover which does not conform to Council specifications or is a hazard in the road verge (schedule 9.1, clauses 6 and 7 of the Local Government (Uniformed Local Provisions) Regulations 1996
- g) Crossovers which fail to comply with these specifications will not be eligible for Council's subsidy. In addition any required remedial works shall be undertaken by the contractor or owner at their expense.
- h) At the completion of constructing a new dwelling or the re-development of an existing dwelling, a crossover conforming to Councils specifications shall be installed.

2. BRICK / BLOCK PAVING CONSTRUCTION

- a) Paving Bricks/Blocks

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

- b) Sub-grade Formation and Sand Compaction.

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

- c) Concrete Aprons

In situ barrier and semi mountable kerbing can be removed (refer section 10a) and a concrete apron installed. The apron must have a 25mm bull nose lip at the carriageway aligned with the front of kerb and a minimum of 300mm wide and 150mm deep. It must also blend into the existing kerb profile.

d) Paving Bricks/Blocks

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

e) Laying Paving Bricks/Blocks

Paving bricks/blocks shall be placed in a continual interlocking pattern and maintain straight alignment, with approximately 2mm 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. Any gaps at the back of the kerb are not to exceed 10mm.

f) Edge Restraint

A firm edge restraint preventing lateral movement of paving bricks/blocks at the edges is required. The edge restraint must be in the form of in situ concrete.

g) Joint Filling and Compaction

The sand to be used for joint filling shall be washed single sized sand (beach sand is acceptable). It should be broomed into all joints prior to compacting. After applying the sand, 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.

3. CONCRETE / POURED LIMESTONE CONSTRUCTION

a) Concrete Thickness

All residential concrete crossovers shall have a minimum thickness of 100mm.

b) Concrete Specifications

All concrete used in works shall develop a minimum compressive strength of 20 mega Pascals 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 80mm. Please note: - the minimum allowable aggregate size for crossovers is 10mm.

c) Removal of Existing Kerb

In situ barrier and semi mountable kerbing can be removed (refer 10a.) and the crossover shall abut the road surface. When the crossover is constructed there shall be a 25mm bull nose lip at the carriageway aligned with the front of kerb. The crossover must blend in with the existing kerbing.

d) 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 100mm of concrete pavement, refer Drawing Number MISP-0208B. 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.

e) Placing Concrete

The base shall be thoroughly and evenly moistened prior to placing concrete. Concrete shall be evenly placed to a minimum depth of 100mm and shovelled into position continuously, especially at all edges to ensure maximum density. No break in operations shall be permitted from time of placing to finishing except as authorised by the Manager Engineer Services or their nominated representative.

f) Finishing

The finishing shall be obtained by screeding to the correct levels and broom or wood float 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 dusty accretions liable to cause excessive surface wear. The final surface finish shall be to the entire satisfaction of the Councils Engineer or their nominated representative who shall reserve the right to require the removal of or the correction of any surface deficiencies or finish. A steel trowel finish is not permitted on any surface of a vehicle crossing.

g) Expansion and Construction Joints

Construction joints shall be made in the form of plain dummy joints or fracture joints, be 10mm deep and finished with an approved jointing tool and in positions as shown on attached Drawing Number MISP-0208B. The distance whether laterally or longitudinally between construction joints shall not exceed 2.5m. Expansion joints shall be full depth joints 14mm wide and filled with bitumen impregnated caneite or similar approved material. They shall be located at the property line, at the back of kerb and where applicable, at the edge of footpath.

4. FOOTPATHS

- a) Where a footpath exists, the cross-over must "tie in" with the existing footpath levels. If any section of the footpath is to be removed, it shall be cut with a concrete cutting saw and in alignment with the edge of the proposed crossover. Expansion material must be placed between the crossover and the footpath.
- b) Any section of footpath which is damaged and/or removed outside the area of the crossover shall be reinstated to the nearest fracture or expansion joint, with in situ concrete. Expansion material must be placed between the crossover and the footpath.

5. VERGE LEVELS AND PEDESTRIAN ACCESS

- a) The crossover shall be constructed to the existing verge grade, subject to requirements of section 6d.
- b) The crossover shall be constructed so as not to pose a hazard or obstruction to pedestrian access along the verge.
- c) No part of any retaining wall, boundary fence or edging can extend onto the verge.
- d) If Council deems the verge heights have been altered and the crossover poses a hazard to pedestrian access, remedial works may need to be undertaken at the property owner's expense.

6. ALIGNMENT AND PROFILE

- a) All crossovers shall be at right angles to the roadway kerb line.
- b) Crossovers shall be no closer than 400mm to the property side boundary.
- c) Crossover wings shall not be wider than 1500mm and no portion of the wing is to extend beyond the side boundary alignment of the property it serves.
- d) Part of the crossover must have a finished level 75mm above the top of the kerb. Any variation to these heights is to be determined by the Manager Engineer Services or their nominated representative prior to the crossover being constructed.
- e) At the property boundary, the crossover shall have a minimum width of 2.8 metres and a maximum width of 7.0 metres.
- f) At 1500mm back from the kerb line, the crossover shall have a minimum width of 3.7 metres and a maximum width of 7.0 metres
- g) At the kerb line, the crossover shall have a minimum width of 6.7 metres and a maximum width of 10.0 metres.
- h) Crossovers that do not meet the minimum and maximum allowable widths will only be considered acceptable for Council's subsidy where written approval has been obtained from the Manager Engineer Services prior to the crossover being constructed.

- i) No part of the crossover shall extend into the turning radius of another road intersecting the road that the crossover is servicing. Refer Drawing Number MISP-0208C.
- j) Where necessary, crossovers may be constructed to abut an existing side-entry drainage pit lid, without the need to provide a wing.

7. COMPLETION

- a) On completion the site is to be left in a clean and tidy condition to the satisfaction of the Manager Engineer Services or their nominated representative. All cross-over edges must be back filled with clean sand or top soil and left level with the existing verge height. All surplus material, including kerbing and footpath panels, must be removed from site and taken to a Landfill facility.

8. CONTRACTORS RESPONSIBILITIES

- a) Safe access along the verge and/or footpath, clear of any hazardous material and uneven ground, must be maintained for pedestrian traffic.
- b) After concrete has been poured, the finished surface must be protected from rain, vehicular and pedestrian traffic, graffiti etc, for a period of 24 hours.
- c) Reinstatement must be made to kerbing, footpaths, verge and any road surfaces damaged during the crossover construction to the satisfaction of the Manager Engineering Services or their nominated representative. Any concrete must be totally removed from the road surface.
- d) Liaison with the Manager Engineer Services or their nominated representative regarding levels, layout, dimensions etc and any other general enquiries regarding the crossover and verge.
- e) The repair to any of Council's infrastructure and public utilities damaged during the course of works shall be the responsibility of the Contractor at their expense.

9. CONSTRUCTION – OTHER MATERIALS

- a) Construction of crossovers with materials other than bricks, blocks, in situ concrete or poured limestone will only be considered for rural and commercial properties.

10. GENERAL

- a) Existing in situ barrier and semi-mountable kerbing should be cut with a concrete cutting saw and removed without damage to the road surface or remaining kerb. Where a concrete apron or crossover is to be installed, the road surface shall be cut with a concrete cutting saw to leave a clean and straight edge. Where in situ mountable kerbing is provided paving bricks/blocks shall be laid level with the top of the kerb.
- b) Should there be a relocation of a public utility asset required for the construction of a crossover, the owner is responsible to liaise directly with the relevant authority to undertake such work at the owner's cost.
- c) Where a new crossover is constructed and an old crossover becomes redundant, the old crossover shall be removed and the verge and kerb reinstated to match the existing verge and kerb type.
- d) The area must be cleared of debris, bitumen and concrete products, etc., on completion of the works.
- e) Any special requirement placed on the construction or location of a crossover by the Manager Engineer Services or their nominated representative must be adhered to.
- f) Where crossovers are constructed, all repairs and maintenance shall be the responsibility of the property owner to the satisfaction of the Manager Engineer Services or their nominated representative.
- g) Rural crossovers requiring a culvert to be installed shall comprise of 300mm class 2 concrete pipe or an equivalent diameter and strength rigid polyethylene pipe. Maintenance of the culvert and one metre distance upstream and downstream, is the responsibility of the owner.

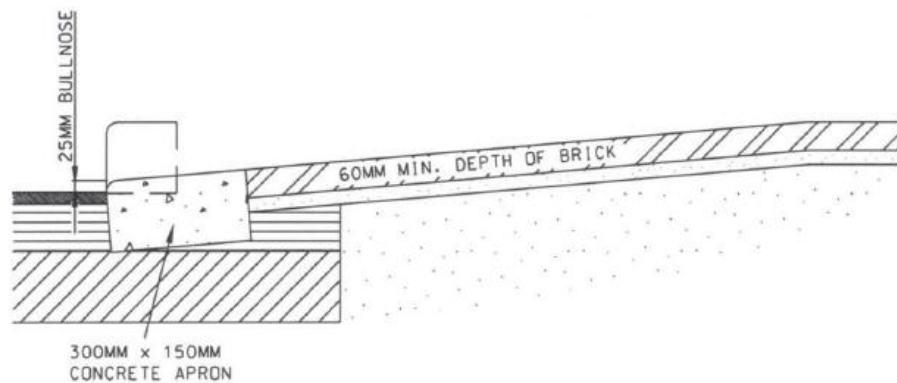
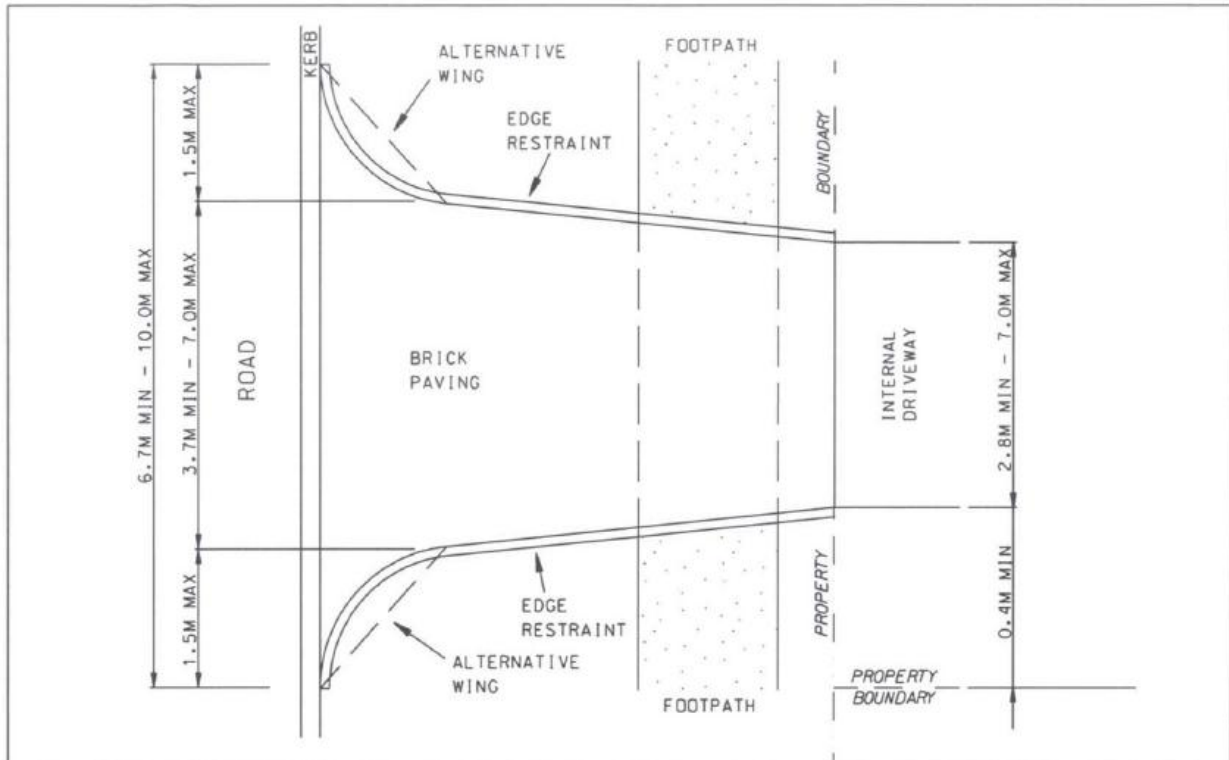
11. COUNCIL CONTRIBUTION

- a) On completion of a crossover, written application on the appropriate form should be made to the Council for a contribution and a final inspection. A delivery docket or supply docket stating strength and quantity of materials used must be attached to the application. The contribution of Council shall be 50% of the minimum width requirements for a residential crossover constructed in concrete. Subsidy will only be made to crossovers which conform to Council specifications or are previously approved, in writing, otherwise.
- b) Only one crossover per lot will be contributed to by Council. However, with properties of Duplex zoning or greater, Council will contribute to each crossover servicing a residence, or group of residences.

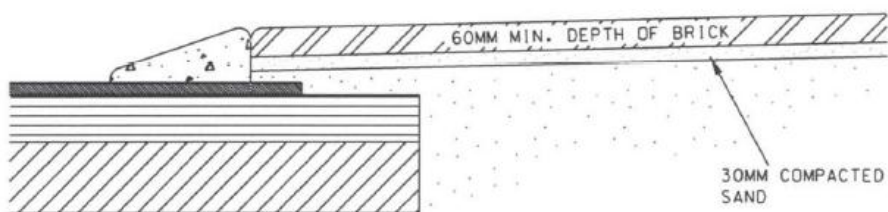
If your proposed crossover does not meet these specifications, please contact Engineering & Parks Services on 9528 0434 to discuss alternatives.

DIRECTOR ENGINEERING & PARKS SERVICES

25 May 2010

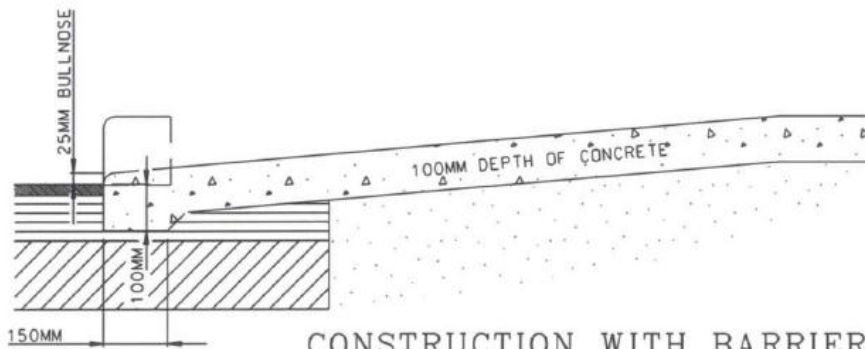
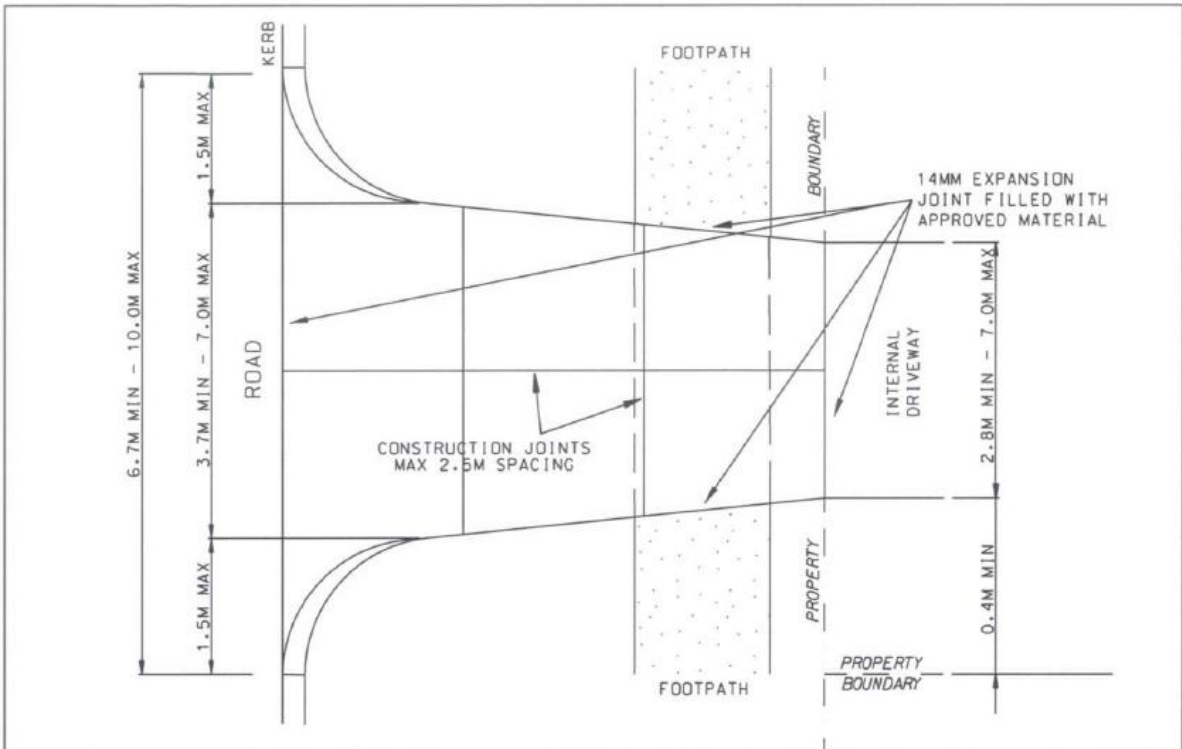


CONSTRUCTION WITH BARRIER OR SEMI-MOUNTABLE KERB

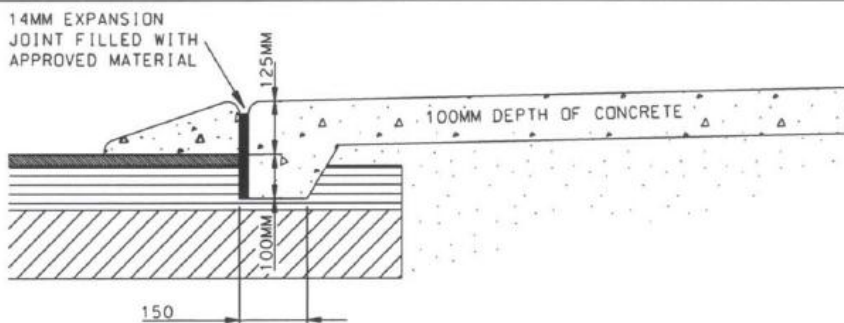


CONSTRUCTION WITH MOUNTABLE KERB

CITY OF ROCKINGHAM STANDARD RESIDENTIAL BRICK/BLOCK PAVED CROSSOVER	Scale	N.T.S.
	Date	09-01-2008
	Drawn	S BOLTON
	DWG No.	MISP-0208A

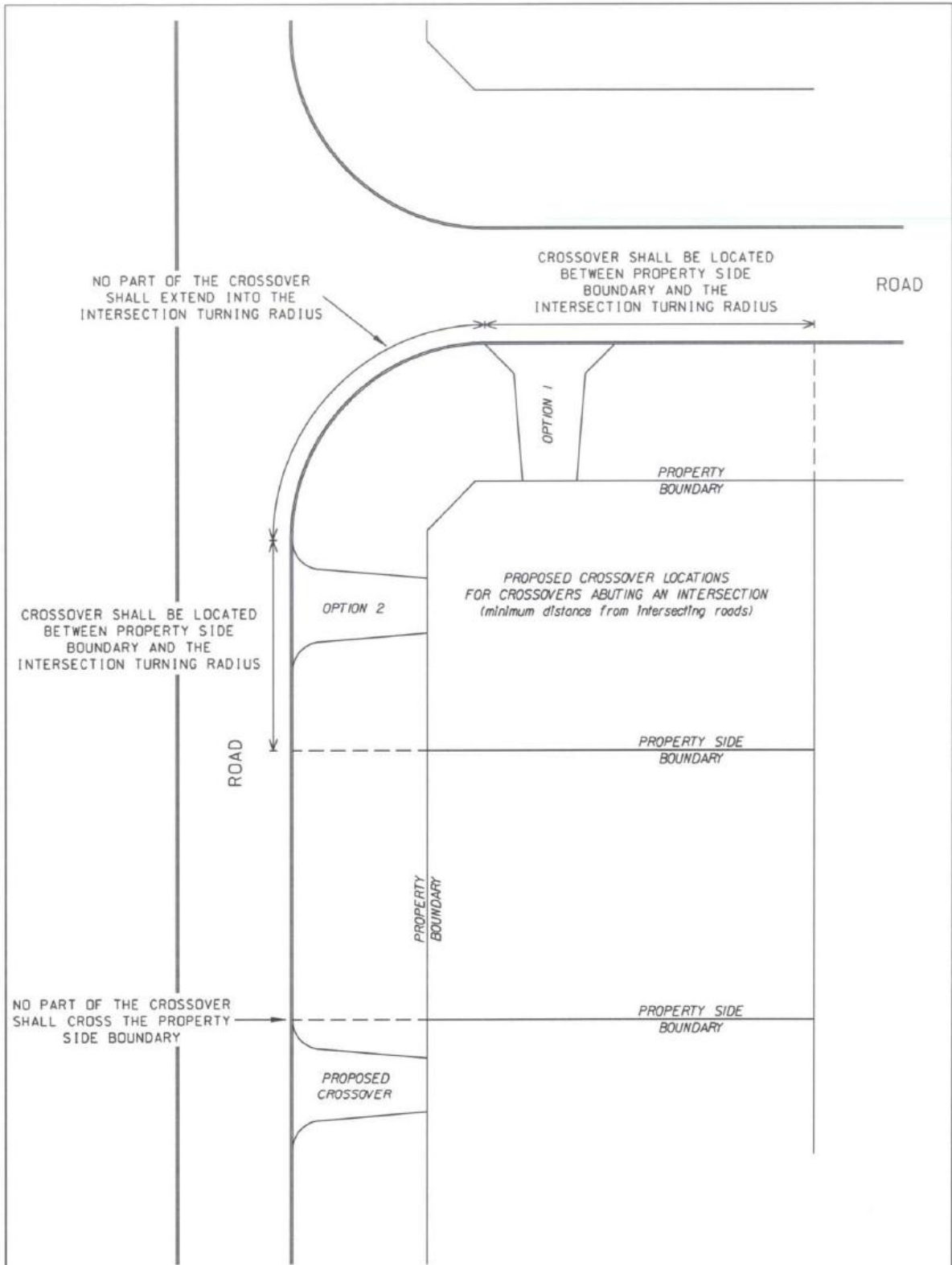


CONSTRUCTION WITH BARRIER OR
SEMI-MOUNTABLE KERB



CONSTRUCTION WITH MOUNTABLE KERB

CITY OF ROCKINGHAM	Scale	N.T.S.
	Date	09-01-2008
STANDARD RESIDENTIAL CONCRETE/POURED LIMESTONE CROSSOVER	Drawn	S BOLTON
	DWG No. MISP-0208B	



<p>CITY OF ROCKINGHAM</p> <p>STANDARD RESIDENTIAL CROSSOVER LOCATION AT INTERSECTING ROADS</p>	Scale	N.T.S.
	Date	09-01-2008
	Drawn	S BOLTON
	DWG No. MISP-0208C	

ENGINEERING AND PARKS SERVICES



APPLICATION FOR RESIDENTIAL CROSSOVER SUBSIDY

PLEASE NOTE This application Form must be signed and completed fully by the owner. Facsimile copies are NOT accepted. In accordance with Local Government (Uniform Local Provisions) Regulations 1996 Sch. 9.1, Cl. 7, the City's contribution will be half the cost of constructing a minimum width concrete crossover to the City's specifications, as estimated by the City for the first crossover only.

The Director Engineering & Parks Services reserves the right to order the alteration or removal of any constructed crossover which does not conform to the City's specifications or is a hazard in the road verge (Sch.9.1, Cl.6 and Cl.7)

Please allow 6 weeks for the Application to be processed.

**The Chief Executive Officer
City of Rockingham
PO Box 2142
ROCKINGHAM WA 6168**

Dear Sir

I/we, Mr/Mrs/Miss (PLEASE PRINT NAME)
the undersigned owner, hereby make application for Council's contribution towards the crossover at
* (ADDRESS house and lot number) and
hereby release the Council from liability in relation to any repairs or other forms of reinstatement's in relation to the crossover.

***Is this your permanent address for all postal correspondence?** Yes No

If no please provide current postal address:

Please provide bank details for your subsidy payment via Electronic Funds Transfer (EFT)

Account Name:

BSB No.:

Account No.:

Email address for remittance advice:

Phone Number (daytime):

Signature: **Date:**

**** APPLICATIONS CANNOT BE SUBMITTED UNTIL CROSSOVER IS CONSTRUCTED**

CROSSOVER TYPE (Please indicate):

- **Concrete/Poured limestone** (attach concrete manufacturer's delivery docket)
- **Brick/Block Paving** (attach brick manufacturer's supply docket) ****Bitumen or Limestone** (Rural only)

PLEASE NOTE:

**** IF SUPPLY OR DELIVERY DOCKET IS NOT INCLUDED, APPLICATION CANNOT BE PROCESSED**

OFFICE USE ONLY		
Approved:	Date:	Amount: \$.....
Authorised:	Date:	<input type="checkbox"/> Copy sent to rates
2c) no concrete apron	2f) edge restraint broken L/R	3g) no or inadequate expansion joints
5a) verge heights altered	5b) poses pedestrian hazard	6a) not at right angles to kerb line
6b) not 0.4 from side boundary	6c) extends beyond side boundary	6g) not 6.7m along kerb line
6g) exceeds 10m along kerb line	6i) Infringes upon intersection sweeps	7a) site not left in clean & tidy condition
Other:		Specs: