



WHAT IS A CROSSOVER?

A crossover is the access from the boundary of a property to the road edge. It is within the road reserve and because of this, special conditions may apply to cross over construction and maintenance.

APPROVAL PROCESS

1. To construct a crossover in the Shire of Northam you must complete the "Application for Vehicle Crossover Construction" and contact Council's Technical Officer prior to work commencing on your crossover. Main Roads approval is required for crossovers to Great Eastern Highway, Toodyay, York and Goomalling Roads.
2. Your crossover should be constructed by an approved Shire of Northam Contractor at your own cost.
3. Residential crossovers may be constructed in asphalt, in-situ concrete, concrete block paving or clay brick paving. Colouring is permitted for full width crossovers and concrete aprons. Speak to the Technical Officer regarding colour choices.
4. Approval to construct a crossover will be issued by the Shire of Northam. Redundant crossovers should be removed and the footpath is required to be reinstated to abut a newly constructed crossover.
5. It is imperative that your contractor contacts the relevant authorities including but not limited to: Water Corporation, Western Power and Telstra. The Shire of Northam will not be responsible for any damage or interference caused to service authorities installations, cables, etcetera.
6. Completed works should be inspected by Council's Technical Officer prior to you making final payment to the contractor.

APPLICATIONS FOR VEHICLE CROSSOVER CONSTRUCTION FORMS ARE AVAILABLE ON OUR WEBSITE OR BY CALLING THE SHIRE OFFICE.

CONSTRUCTION SUBSIDY

Council will provide up to 50% of the total cost of construction of a standard crossover to a maximum of \$600 for a new crossover without culvert, or to a maximum of \$1100 for a new crossover with a new culvert and headwall.

PLEASE MAKE SURE TO:

1. Contact the Council Offices before you start planning or construction to obtain specifications.
2. Remove any existing crossover (redundant crossover) before starting a new crossover. This must be done at your own expense.
3. Check with Council's Parks and Gardens Supervisor for approval before removing any verge trees and major root systems. Any costs incurred in this regard will be the responsibility of the contractor or the applicant.
4. The following clearances must be observed:

Street Trees:	1.5m
Side entry Pits:	1.0m
Utility Box:	1.0m
Street Lights:	1.0m
5. If you want to construct a brick paved crossover within a barrier kerbed street, the Shire of Northam requires that a concrete apron is also constructed.

SHIRE OF NORTHAM SPECIFICATIONS FOR STANDARD CROSSOVERS

1. GENERAL

- 1.1 This specification is made pursuant to the Shire of Northam Policy relating to Vehicular Crossings:
- 1.2 Vehicle Crossovers shall be constructed under the supervision of, and to the direction of, the Councils nominated Officer.
- 1.3 Protection of the works and the public shall be the responsibility of the owner who shall supply and install all necessary warning signs, barriers, lights, temporary bridges or any other thing necessary or as may be directed by Council's Technical Officer. Failure to do so shall constitute an offence under Section 377 of the Local Government Act.
- 1.4 Any damage which may occur to Council's facilities or to private property during the course of the works or arising from them shall be the sole responsibility of the owner, who shall be held responsible for the replacement or report of such property, and for any other claim or liability arising out of the works.

GENERAL (Continued)

- 1.5 Crossover abutting an open drain will require a piped culvert and headwalls as part of the works. The owner shall contact Council's Technical Officer to determine the size of pipe. All pipes and headwalls shall be precast concrete from an approved supplier and be a minimum of 375mm in diameter.

Additional crossovers required will be installed at full cost to the owner.

2. EXCAVATION AND SUB-GRADE REPARATION

- 2.1 The subject for the crossing place shall be cut to the lines and grades shown on the standard drawings.
- 2.2 All grass, roots, other organic matter, clay or any other matter shall be removed for a depth of not less than 300mm below the finished subgrade level.
- 2.3 The subgrade shall be prepared and compacted so as to achieve a uniform compaction over the whole of the crossing place.
- 2.4 Where in the opinion of Council's nominated officer the subgrade is incapable of withstanding the anticipated loads, a sub-grade base comprising 200mm compacted thickness of rockbase shall be placed prior to the base course. The sub-base shall be compacted to 95% MDD.

3. ASPHALT

- 3.1 Asphaltic concrete (AC) crossover shall comprise a compacted subgrade (Hotmix), crushed rock base course and AC seal. The sides of the crossover shall be retained by timber or concrete kerbing as detailed on the drawings.
- 3.2 The base course shall comprise a layer of sound crushed rock (rock base) supplied from an approved quarry and compacted to the finished thickness shown on the drawings.
The base shall be placed so as not to disturb the subgrade, then graded to the required shape and levels, compacted to produce a layer of uniform thickness and density. The density shall be not less than 95% MDD.
- 3.3 The seal coat shall comprise of a minimum 20mm (+5-0) thickness of 5mm nominal mix AC for residential crossovers, and 25mm (+5-0) of 7mm nominal mix ACT for commercial and industrial crossovers.

The AC shall be applied over a tack coat of emulsion applied at a rate of 0.8 litres/m². AC shall be applied evenly and rolled with a smooth drum vibrating roller to attain a smooth dense uniform surface.

4. IN-SITU CONCRETE

- 4.1 An in-situ concrete crossover shall consist of a slab of 150mm thick concrete placed on compact subgrade in accordance with specifications.
- 4.2 Concrete strength shall be N25 in accordance with Australian Standard 3600. Maximum aggregate size shall be 20mm and slump shall not exceed 80mm.
- 4.3 Industrial slabs may be reinforced with F-62 mesh located centrally within the slab thickness.
- 4.4 Expansion joints shall be placed at the boundaries and between the slab and the kerb (see drawings). The expansion joint shall be the depth of the slab filled with approved rubber plastic foam and sealed with butyl mastic.
- 4.5 Contraction joints shall consist of 12mm grooves tooled into the surface of the slab at 2.5 metric centres.
- 4.6 The surface of the slab shall be screeded correct levels, then broom finished to provide dense uniform non-slip surface. The surface should be free of depressions, jointing marked honeycombed sections or dusty sections which may cause excessive wear.
On steep crossover the Council's Officer must direct that the surface be grooved in order to provide sufficient non-slip properties.

5. IN-SITU CONCRETE

- 5.1 Paving bricks shall be clay brick or concrete pavers from an approved manufacture.
- 5.2 Pavers shall be laid on a prepared base comprising of rock base overlaid with bedding layer of clean course sand, in accordance with the following:
Brick pavers: 75mm minimum thickness on 125mm compacted sub-base.
Concrete pavers: 60mm minimum thickness on 150mm compacted sub-base.
Bedding sand: to be 25mm thick.
- 5.3 Pavers shall be laid in a herringbone pattern, stretcher-bond or similar. Where non-interlocking bonds are utilized the crossover must have concrete kerb (refer to drawings)
- 5.4 Brick or block paved crossing places shall be provided with edge restraint as shown on the drawings.