SHIRE OF MANJIMUP

STANDARD SPECIFICATION

FOR GUIDANCE IN THE

DESIGN AND CONSTRUCTION

OF

URBAN CROSSOVERS

CONTENTS

STANDARD SPECIFICATIONS FOR GUIDANCE IN DESIGN AND CONSTRUCTION OF URBAN CROSSOVERS

1. GENERAL

This specification sets out the requirements for the construction of a vehicle driveway (crossover) from the edge of the road pavement to the boundary line of any urban location in the Shire of Manjimup, Pursuant to the provisions of Section 12 to 16 of the Local Government (Uniform Local Provisions) Regulations 1996, which is part of the Local Government Act 1995.

2. PREPARATION

2.1 Location

- Crossovers are constructed at 90º (right angles) to the kerb line.
- Be positioned a minimum of 1.0m from the side boundary.

Crossovers to all corner properties (including commercial developments) are to have no portion of the crossover (including splays) constructed closer than 6.0m from the tangent point of the kerb returns.

2.2 Dimensions

The minimum and maximum width for residential and commercial crossovers is as follows.

Residential:

- 2.75m minimum and 6.0m maximum with 1.5m splay section at road edge.

Commercial:

- 3.0m minimum with one way traffic, 6.0m minimum with two way traffic, up to a maximum of 10m. A 2m splay section at road edge to be provided both sides.

Any variance to these dimensions is by Council approval only.

Minimum depth of the various crossovers is as follows:

2.2.1 Concrete

100mm thick concrete pavement for residential crossovers and a minimum depth of 150mm for commercial crossovers. All concrete crossovers to be constructed over a 50mm thick sand pad and commercial crossovers to include F62 steel mesh located through the centre pavement.

2.2.2 Brick Paving

Residential:
50mm minimum thick brick pavers placed over 20mm thick sand and 50mm thick compacted gravel, limestone or road base.

Commercial:
65mm minimum thick performance brick pavers over 20mm layer of sand and 100mm compacted layer of gravel, limestone or road base.

Edges of crossover are to be restrained by a concrete beam 100mm wide by 125mm deep.

Note: The preferred pattern for laying pavers is herringbone with pavers laid at 45º from the kerb line. Other patterns will be considered prior to installation.

2.2.3 Bitumen

Minimum 2 coat 7/10mm seal or 25mm asphalt laid over minimum 150mm compacted gravel, limestone or road base to be primed with bituminous primer, prior to asphaltic concrete being placed.

2.3 Levels

The crossover at the boundary line is to have the same longitudinal grade (slope) as the roadway.

The final grade from the top of the kerb up to the finished level at the boundary line must equal 2%. (eg 6m wide verge would require levels at boundary line to be 120mm above top of kerb). Where kerbing has been removed, crossover to be at top of kerb height (minimum) at 1.5 m. from edge of road pavement and have kerb wings placed or manufactured on site to protect integrity of kerb drain.

Under extreme circumstances, where it is believed this level cannot be followed, alternate levels must be approved by Council, prior to works commencing.

3 CONSTRUCTION

3.1 General

3.1.1 Kerbing

Where barrier or semi mountable kerbing is in place at the crossing entrance, a length of kerbing equal to the appropriate entrance width of the crossing (5.75m minimum) shall be removed in all cases. Kerb wings or returns are to be installed or site manufactured to match existing kerbing.

Where mountable kerbing is in place at the crossing entrance, a length of kerbing equal to the appropriate width of the crossing shall be removed only if:

a) The mountable kerbing is cracked in one or more places.

b) The average depth between the final road surface and the front edge of the mountable kerbing exceeds 25mm.

Note: Where kerbing is to be removed, it shall be cut clean with a concrete saw and removed carefully so as not to disturb the surface of the roadway or the adjoining kerb.

3.1.2 Excavation

The excavation for the crossing base shall be taken out to the line, level and grades as previously worked out and shall be excavated cleanly and efficiently to provide for a consolidated sound base free of depressions or soft spots or any deleterious materials.

3.1.3 Reinstatement

All disturbed verges surrounding the crossover shall be reinstated with clean loam or sand free of any stone or other deleterious matter.

Where concrete footpaths are removed to permit the construction of a crossover, they shall be cut with a concrete saw and if necessary removed to the contraction or expansion joint nearest to the crossover. They shall be reinstated to a minimum thickness of 100mm. The reinstatement path and the crossover shall be separated by an expansion joint as specified.

Any road surfaces or existing kerbing disturbed during the works must be reinstated to at least its previous existing condition.

Any public utility damaged during the course of works must be reported to the appropriate authority and reinstated to at least its previous conditions.

Any construction of crossover must not impede the normal flow of surface water down verge nor create a tripping hazard to pedestrians crossing this verge. Where necessary, imported clean fill may be required to raise verge to crossover level.

3.1.4 Contractor's Responsibility

Contractor shall be responsible for:

- Removal and disposal of all surplus material from the site of the works and leave the site in a clean and tidy condition at all times.
- Removal of temporary form work without damage to concrete, pavement or existing kerbing.
- Protection of Council, public and private property.

3.2 Concrete Crossover

3.2.1 Concrete

All the concrete used in the work shall develop a minimum compressive strength of 20 MegaPascals (MPa) at 28 days with a maximum slump of 50mm delivered by transit truck from an approved mixing plant.

Concrete shall have an approved high early strength additive to give rapid hardening where directed by local authority.

3.2.2 Placing Concrete

The base shall be thoroughly and evenly moistened but not saturated prior to placing concrete. All stones or other deleterious material shall be removed from the base before pouring concrete. The concrete shall be evenly placed to the depth specified in one continuous operation, and shovelled into position continuously and spaded, especially at all edges, to give maximum density.

3.2.3 Jointing

Contraction joint shall be made in a form of plain dummy joints and finished with an approved jointing tool and in positions as shown on the plan. The distance between contraction joints shall not exceed 3 metres longitudinally and 3 metres laterally.
Expansion joints shall be full depth joints 14mm wide, shall be filled with bitumen impregnated canite or similar approved materials and located at the property boundary and at junctions with existing kerbing and/or existing concrete footpaths.

3.2.4 Finishing

The finish shall be obtained by screeding to correct levels and wood floating to provide a non slip dense surface free from any depressions, float marks, irregularities, honeycomb sections or slurry liable to cause excessive surface ware.

The final surface shall be to the satisfaction of the local authority who shall reserve the right to require the removal of or correction to any surface deficiencies or finish.

The surface shall be treated with a transverse brooming tool to provide a non slip surface and edges shall be finished with a 100mm wide edging tool.

3.3 Brick Paved Crossover

3.3.1 Brick pavers

All brick pavers used in the crossover must be either commercially produced or comply with Australian Standard AS1224/1972 and AS1225/1984 with regards to the dimensions and strength of the pavers.

3.3.2 Laying of Pavers

Commence at a straight fixed edge if possible. Start laying pavers in the desired pattern. Place each paver onto the sand, tap lightly into place with a rubber mallet or hand tapper.
Note: Ensure pavers have at least 2mm gap between them for sand filling.

3.3.3 Joint Filling

When the section is finished, brush clean dry sand into all joints until filled. Sweep off any excess sand. When all paving is completed, continue to sweep sand into joints until all joints are filled. This ensures that the paving is locked up.

3.4 Bitumen Crossover

3.4.1 Formwork

To ensure the edge of the bitumen crossover does not crack or fret away it is imperative that permanent formwork is installed once excavation stage has been completed. 150 x 50 merchantable quality jarrah or treated pine would be considered suitable.

This formwork shall be placed down both sides, from fence line (when no footpath exists) or from edge of footpath (where footpath exists) to the kerb line including the splays. This formwork to be held in place by suitable pegs (50 x 50 x 300 jarrah), spaced no more than 2m apart and at every joint of the timber. These pegs are to be connected to the formwork securely by spikes or bolts.
Unless full width grano exists internally at the gate entrance, formwork (as specified) must be installed along the property line.

3.4.2 Base Course

Base course is to be installed in layers no greater than 75mm, watered and compacted up to strength of 95% modified maximum dry density. The surface of the base course must be brought up to slurry via watering and compacting with a mechanical compactor and allowed to dry back prior to placing any wearing course.

3.4.3 Wearing Course

The base course must be sprayed with a bituminous primer consisting of 50% residual bitumen (Class 170) and 50% flux oil and or cutter.

Note:
These materials can be supplied by any bitumen-laying contractor.

The primer must be allowed to soak into the base course prior to the final wearing course being laid.

The final wearing course consists of a minimum 2 coat 7/10mm seal or 25mm thick compacted asphaltic concrete, laid to the satisfaction of the local authority.

4 SAFETY

Protection of works and the public shall be provided and maintained by the contractor who shall supply and keep supplied as directed, all the necessary signs, barricades, road warning lamps, temporary bridges or any other item that may be required by the local authority.

These items must be in place during the works and up to the minimum of a three (3) day period following completion of works.

Any personnel working within the vehicular thoroughfare must wear retro reflective safety jackets.

Any Contractor constructing a crossover must have public liability insurance that shall indemnify the Council against all claims, demands, proceedings, costs and expenses that may occur as a result of these works.

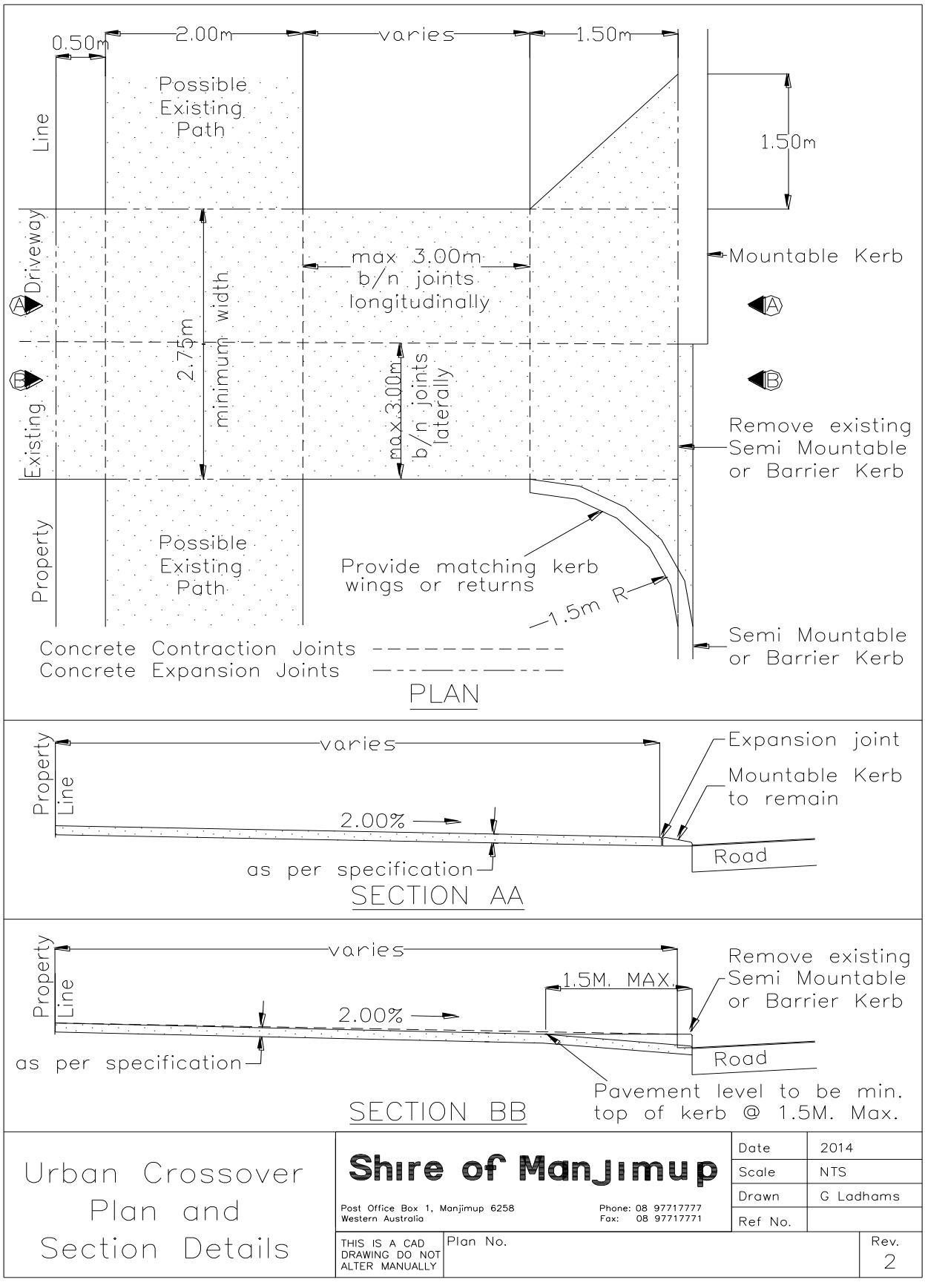
5 COUNCIL SUBSIDY

A subsidy, as per Council's schedule of fees and charges, is payable by the Shire of Manjimup. Please note that private developers are not eligible for a subsidy.

This payment is subject to the application for a contribution being lodged within twelve (12) months of construction and following inspection, the crossover being deemed to conform with Council's specifications.

A claim for this payment should be made on the form titled "Application for Crossover Subsidy" and must include a signed declaration and include any contractors and suppliers receipt.

Appendix A



Urban Crossover Plan and Section Details	**Shire of Manjimup** Post Office Box 1, Manjimup 6258 Western Australia Phone: 08 97717777 Fax: 08 97717771	Date	2014
		Scale	NTS
		Drawn	G Ladhams
		Ref No.	
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