



## Crossovers – (Extract of Policy 9/005)

### 1.0 Definitions

“Act” without prejudice to the provisions of sections fourteen and fifteen of the Interpretation Act 1918, or to the other provisions of that Act, a reference to this or another Act extends to regulations, rules, by-laws, and other delegated legislation, if any, made under the Act to which the reference is made.

“Council” means the executive body of a municipality. In this case the Town of Port Hedland

“Engineering Services” means the department appointed for a municipality by its Council as are necessary to the proper carrying out of the local government of the municipality and the powers conferred and duties imposed upon the municipality and the council by the Local Government Act.

“Vehicle Crossing” (or Crossover) is the formalised access to an abutting property, constructed to required specifications. The two types of crossings are, 1: residential and 2: commercial.

“Residential” crossings are located in predominate residential areas as described

“Nature Strip”(or verge) is the section of road reserve between the edge of the edge of road and property boundaries. They provide space for grassing, planting, above and underground drainage, and public utility services. It also provides a buffer between the footpath and the edge of the traffic lane, and width in which to absorb level differences across the road reserve.

### 2.0 General – Urban Areas and Rural Estates

2.1 All crossovers shall be constructed to the attached Engineering specifications and drawings and shall be approved by the Engineering Services. Owner/agent shall arrange for construction and liaise with Engineering for inspections.

2.2 The crossover shall be paved utilising bituminous surfacing, insitu concrete, paving bricks or blocks.

2.3 Council shall pay for one half the cost of one standard width (refer 6.1) crossover per lot to a maximum of \$1,000 subject to the crossover being deemed to conform to the specifications. Application forms are available from Council’s offices at McGregor Street, Port Hedland or by phoning 9158 9700 and asking for form ES.VCS.V2. To be eligible for a subsidy applicants must arrange for inspection of crossover immediately before concrete is poured and after completion.

2.4 The subsidy shall apply to industrial, commercial and grouped dwellings as well as single residential. In the case of strata titles, a subsidy shall apply to each individual crossover up to the number of dwellings.

2.5 Crossovers, eligible for subsidy, may be claimed for at the subsidy rate that applies in the financial year construction is completed. Older crossovers in excess of twelve months old shall have a reduced subsidy based on straight line depreciation, pro-rata over 15 years.



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2.6 The reference a “standard crossover” shall mean a sealed or paved construction to a size conforming to Engineering Services’ standard widths, referred to in Specifications and Drawings of this Policy.

2.7 Council shall not be responsible for maintenance of crossovers. Upon completion of construction, the maintenance and upkeep of the crossing to a safe and trafficable standard becomes the responsibility of the adjacent property owner.

2.8 This specification is made pursuant to Schedule 9.1 Clause 7 of the Local Government (Uniform Local Provisions) Regulations 1996 Clause 7, 12 – 16 inclusive.

2.9 Vehicle crossovers shall be constructed under the supervision and to the satisfaction of the Engineering Services Department of Council. Owners are responsible for notifying Council on the pre and post construction phase of the crossover, to ensure inspection by an Engineering Services Officer.

2.10 Protection of the works and the public shall be the responsibility of the owner/contractor who shall supply and install all necessary warning signs, barriers, lights, temporary bridges or any other thing necessary or as may be directed by Engineering Services.

2.11 The contractor covenants that it shall take out and maintain adequate public liability insurance. Minimum acceptable to Council will be five million dollars (\$5,000,000).

2.12 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 repair of such property, and for any other claim or liability arising out of the works.

2.13 A person wishing to construct a crossover should contact the relevant service authorities including (but not necessarily limited to) the Water Corporation, Western Power and Telstra. The Council shall not be responsible for any damage or interference with the crossover caused by service authorities. Dial “1100” before the commencement of construction, for the location of all services.

2.14 Location:

A crossover: -

- (a) *May only be constructed where there are less than two (2) existing crossovers per lot frontage.*
- (b) *To any one lot shall not exceed 30% of the total verge frontage area where site conditions permit Engineering Services to determine otherwise.*
- (c) *Shall not be positioned within a corner truncation or closer than 7m from the property line intersection point at corner sites/where no truncation exists on corner lots.*
- (d) *Shall be constructed at 90 degrees to the kerb line.*
- (e) *Shall be positioned a minimum of 1m from the side boundary or truncation peg.*
- (f) *Shall be located to not cause interference to public utility facilities in the verge and to avoid trees.*



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2.15 Where the installation of a crossing requires the alteration or removal of a slab/in-situ footpath the contractor shall comply with the following;

- (a) Slabs: All slabs removed shall remain the property of the Town of Port Hedland and contact shall be made with Engineering Services to arrange receipt.
- (b) In-situ Concrete: Liase with Council's Works Manager to determine the life of the path. Paths constructed without reinforcement/ or to an insufficient thickness must be removed and the crossing constructed to the appropriate depth. If the footpath is constructed with reinforcement and to the relevant depth, construct the crossing to either side of the path with expansion joints at each edge.
- (c) Where the construction of a new-shared path is undertaken, Council policy requires the removal of any material other than plain grey concrete from driveway/crossovers and reinstatement with plain grey concrete to ensure uniformity of the path system. The section to be removed is to be the width of the path. The cost of reinstatement will be borne by the Council.

2.16 Crossovers abutting an open drain will require a piped culvert and headwalls as part of the works. The owner shall contact Council's Engineering Services Department to determine size of pipe. All pipes and headwalls shall be precast concrete from an accredited supplier. The pipe shall extend at least 1.5m beyond the edge of the crossing upstream and downstream to reduce scour erosion.

2.17 All materials used for the construction of vehicle crossovers shall be in accordance with this standard specification. Materials deemed inferior to those specified shall be liable to rejection and replacement without payment or compensation being made to the contractor for the supply, delivery, laying, placing, finishing, removal or disposal as directed by Engineering Services.

2.18 All surplus materials resulting from site preparation and construction of the vehicle crossing shall become the property of the contractor and shall be removed at the contractor's expense.

2.19 Where internal driveways are constructed prior to vehicle crossings, the property line levels and across to the street must be approved by Engineering Services. Failure to obtain this information from Council may lead to the property owner having to alter his internal driveway at his own expense.

### 3.0 Bonds

3.1 Bonds for the construction or reconstruction of crossovers shall be required to be paid at time off issue of building licence. The Director Engineering Services will set the amount of the bond based on the value of nearby Council owned infrastructure that could be damaged during the construction process.

3.2 Crossover construction/reconstruction shall be required as a condition of subdivision, development and/or as a condition of issue of building licence where it is deemed necessary by the Director Engineering Services.



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3.3 Construction /reconstruction of a crossover as a condition of the building licence shall not be required if the value of the licence is less than \$5,000, but shall apply to all building licences for structures accessible to vehicles regardless of the cost where it is deemed necessary by the Director Engineering Services.

Council may construct the crossover in concrete if not constructed by the owner/agent within 6 months of practical completion or occupation of the building. The cost of such a crossover will be invoiced to the property owner and, if necessary, bond money will be used to settle the account.

### 4.0 Excavation and Sub-Grade Preparation

4.1 The crossings shall be excavated to the level lines and grade as per standard drawing (ES 07-1-0 to ES 07-14-0). Excavation shall be clearly and efficiently executed, watered and vibrator rolled to give a compaction of 95% of maximum density as determined by modified compaction test according to AS 1289 to provide for a sound base free from depression or any deleterious materials to give a minimum of 100mm depth of concrete pavement for residential crossings and 200mm depth of concrete for commercial crossings.

4.2 All grass, roots, other organic matter, clay or any other deleterious matter shall be removed for a depth of not less than 300mm below the finished subgrade level. Any relocation of, or alternations to the existing facilities and/or the removal of trees to make way for the crossing shall be the responsibility of the property owner. The removal of trees will need written authorisation from the Town of Port Hedland. The ratepayer must carry out removal and reinstatement of any reticulation system in the area of the proposed crossover.

4.3 The sub-grade shall be prepared and compacted to provide even compaction to a depth of 300mm. The area of compaction shall extend 150mm outside the formwork. The compaction shall be not less than 95% of the Modified Maximum Dry Density when tested in accordance with AS1289.5.2-1993, Methods of Testing Soils for Engineering Purposes – Soil Compaction and Density Tests – Determination of the Dry Density/Moisture Content Relation of a Soil Using Modified Compactive Effort.

Where in the opinion of the Town the subgrade is incapable of withstanding the anticipated loads, a subgrade base comprising 200mm compacted thickness of road base type material shall be placed prior to the base course. The sub-base shall be compacted to 95% MDD.

### 5.0 Construction Requirements

#### 5.1 Concrete

##### 5.1.1 Thickness:

- (a) Residential – An in-situ concrete crossover shall consist of a slab of a 100mm thick concrete placed on a compacted subgrade in accordance with these specifications.
- (b) Commercial – 200mm thick concrete or 150mm thick concrete with F72 mesh.

##### 5.1.2 Concrete Strength:

25 Mpa @ 28 days. Maximum aggregate size shall be 20mm and slump shall not exceed 80mm



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### 5.1.3 Expansion Joints:

To be provided wherever existing concrete joins new concrete, at kerb line, at property boundary, and at a maximum interval at 6 metres. The expansion joint shall be the full depth of the slab filled with plastic foam and sealed with butyl mastic or similar.

### 5.1.4 Contraction Joints:

Contraction joints shall consist of 12mm grooves evenly spaced, tooled into the surface of the slab at 2-3m centres.

### 5.1.5 Concrete Placement:

The base shall be thoroughly and evenly moistened, but not saturated, prior to placing concrete. Concrete shall be evenly placed to a depth specified and shovelled into position continuously and spaded especially at all edges to give maximum density. No break in operation shall be permitted from time of placing to finishing except as authorised by the Town.

### 5.1.6 Concrete Finish:

The surface of the slab shall be screeded to correct levels then broom finished to provide a dense uniform non-slip surface. The surface shall be free of depressions, jointing marks, honeycombed sections or dusty sections, which may cause excessive wear.

Crossovers may be constructed using coloured concrete and/or a Faux Brick/Stencilled Concrete application. Please seek the advice of an approved concrete contractor, specialising in these treatments. NOTE: Any treatment works, including colours and stencil types, are to be authorised by and to the satisfaction of Engineering Services.

## **5.2 Asphaltic Concrete E.G.: Hot Mix, spray seal**

5.2.1 Asphaltic concrete (AC) crossovers shall comprise of compacted subgrade (Refer 2.4), crushed rock base course and AC surface course. The sides of the crossover shall be retained by timber or concrete kerbing as detailed on the drawings

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.

Spray seal crossovers shall comprise of 14 mm and 10 mm aggregate. 14 mm aggregate is to be spread at a rate of 100 square metres per cubic metre of aggregate, within tolerance of + 10 square metres per cubic metre. 10mm aggregate is to be spread at a rate of 120 square metres per cubic metre of aggregate, within tolerance of + 10 square metres per cubic metre. Typical spray rates will range between 0.7 and 1.9 litres per m<sup>2</sup>.

The seal coat shall comprise of a minimum 20mm (+5-0) thickness of 5mm nominal dense grades mix AC for residential crossovers, and 25mm(+5-0) of 7mm nominal dense graded mix AC for commercial and industrial crossovers. The AC shall be applied over a tack coat of bitumen emulsion applied at a rate of 0.8 litre/m<sup>2</sup>. AC shall be applied evenly and rolled with a smooth drum-vibrating roller to attain a smooth dense uniform surface.



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### **5.3 Interlocking Clay Brick or Concrete Block Paving**

NOTE: This specification applies only to single or multi-unit residential developments where traffic is predominantly of the passenger car type with occasional light service or commercial vehicles.

This specification does not apply to commercial applications where vehicle traffic loadings are far in excess of the domestic situation. Specifications for commercial crossing places are to be approved by Engineering Services.

#### **5.3.1 Paver Type**

Paving bricks shall be high performance clay brick or concrete pavers from an approved manufacturer.

#### **5.3.2 Excavation:**

The existing ground shall be boxed out and shaped to required dimensions and levels. Compaction of the ground shall be carried out using overlapping passes of a vibrating plate compactor. The excavation shall be firm, free from depressions and soft spots, and any deleterious material to be removed.

#### **5.3.3 Bedding Layer:**

The bedding layer shall be a minimum of 30mm loose screed thickness such that the final compacted thickness is a minimum 20mm.

The bedding layer shall be well-graded concreting sand passing a 5.0mm sieve and free of deleterious soluble salts and other contaminants. The sand should be of uniform moisture content and is to be spread over the compacted base course and screeded in a loose condition. Bricklayer's sand and single-sized dune sands are not suitable for the purpose.

#### **5.3.4 Laying:**

Pavers shall be laid on a prepared base comprising of crushed rock base overlaid with a bedding layer of clean course sand, in accordance with the following;

- (a) Brick pavers: 75mm minimum thickness on 125mm compacted sub-base
- (b) Concrete pavers: 75mm minimum thickness on 140mm compacted sub-base

#### **5.3.5 Pattern:**

Pavers shall be laid in accordance with the suppliers recommended pattern. Refer to standard drawings.

#### **5.3.6 Edge Restraints:**

An edge restraint shall be provided by the placing of a 150mm x 150mm in-situ concrete strip along the perimeter of the crossing. The base course must be compacted beneath the edge restraint and extend 100mm beyond the edge restraint.

### **5.4 Kerbing**

#### **5.4.1 Residential (refer to standard drawings):**

All barrier and semi-mountable kerbing must be removed for the full width of the crossover at the road seal edge. The kerb and seal are to be neatly cut and removed so as not to damage the road surface. A new mountable kerb shall be installed in line with existing kerbing.

The crossover shall commence flush with the edge of new kerb and rise a minimum of 150mm to a point 1m behind the face of the kerb (height to be confirmed at time of construction with the



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Town of Port Hedland). Beyond that point the crossover may be graded to match the level of the property boundary or internal driveway. A layback shall be installed at the extremities of the opening.

5.4.2 Rural (refer to Town of Port Hedland Services standard drawings):

The crossover shall commence flush with the edge of seal and rise a minimum of 150mm to a point 1m behind the face of the kerb (height to be confirmed at time of construction with Engineering Services). Beyond that point the crossover may be graded to match the level of the property boundary or internal driveway. A layback shall be installed at the extremities of the opening.

### 6.0 Crossover Dimensions

<b>6.1 Width at Property</b>		Max (m)	Standard (m)
<b>Line:</b> Min (m)			
Residential	2.4	8.0	3.0
Commercial	2.4	10.0*	3.0
<i>Crossovers exceeding max. do not attract a subsidy</i>		<i>Subsidy is calculated on the standard width</i>	