

# SPECIFICATION FOR THE CONSTRUCTION OF CONCRETE AND OTHER VEHICLE CROSSINGS IN PERMANENTLY CONSTRUCTED STREETS



## 1. GENERAL

A Miscellaneous Works Permit (Vehicle Crossing) is required for the construction of all vehicle crossings constructed in permanently constructed streets throughout the City of Manningham. The Miscellaneous Works Permit (Vehicle Crossing) is available from the Customer Service Desk, Municipal Offices at 699 Doncaster Road, Doncaster.

A Miscellaneous Works Permit (Vehicle Crossing) will only be issued on completion and approval of the '**Application for Miscellaneous Works Permit (Vehicle Crossing) Form**' for the property. The vehicle crossing must conform to Council specifications and requirements, and be constructed under Council supervision.

The minimum width of a standard vehicle crossing is to be 3.0 metres and the maximum allowable width be limited to 6.0 metres, unless approved as part of a planning permit or approval granted in writing by the Director City Development or his/her delegated representative.

The number of crossings permitted to a property be limited to one (1) vehicle crossing per 15.0 metres of property frontage. A property must have a frontage of 30.0 metres or greater to enable the construction of two (2) vehicle crossings to service the property, unless approved as part of a planning permit, or approval granted in writing by the Director City Development or his/her delegated representative.

This process is in place to ensure that the proposed location of the vehicle crossing does not conflict with existing Council and other authority assets. A delay in the issuing of the subsequent permit may apply depending on the particular circumstances and requirements of the application, and whether the application needs to be referred to another service unit in Council for review and/or approval.

## 2. PERMIT APPLICATION

The owner/contractor shall apply for, and complete the 'Application for Vehicle Crossing' form prior to being issued with the Miscellaneous Works Permit (Vehicle Crossing) and pay the necessary fee, as determined by Council.

The permit is valid for a period of 3 months (12) weeks from the date of issue and a new permit/application is required in the event of expiry of the permit, unless approval has been given to extend the permit in writing by the Director City Development or his/her delegated representative. Council reserves the right to revoke the permit at any time.

## 3. FOOTPATH LEVEL

At the time of applying for a permit, the Applicant shall ascertain the level of the back of the footpath (or proposed footpath) relative to a given datum, usually the top of the existing kerb.

Vehicle crossings not constructed to the levels supplied, and in accordance with these specifications, may be condemned, and replaced at no cost to Council. If there is no existing footpath, the Applicant should make this clear at the time of applying for the permit.

Where difficult site conditions require variations from the natural levels, authorisation must be obtained from the Manager - Manningham Maintenance or his/her delegated representative, prior to the commencement of any excavation or filling work within the road reserve.

**4. CROSSING DIMENSIONS AND TYPE**

Where there is an existing foot path, the crossover to be installed shall be of the same material as the footpath (concrete) in order to conform to Council's specifications and requirements.

An alternative type of crossing will only be permitted where there is no existing footpath.

For a residential vehicle crossing, the minimum crossing width for a single crossing shall be 3.0 metres. The maximum width of the crossing is not to exceed 6.0 metres, unless otherwise approved.

The vehicle crossing is to have a minimum thickness of 125mm, and reinforced using F62 fabric reinforcement. Approval may be given to vary the thickness of the proposed vehicle crossing, if the crossing is to be located on poor or filled ground.

For Industrial, Commercial or other heavy duty applications, the thickness of concrete shall be increased by 50 millimetres where specified, and F62 fabric reinforcement used top and bottom with 50 millimetres cover.

No crossings shall be constructed within 9.0 metres of any street or road intersection, to be measured from a point where the property boundaries intersect, unless approved as part of a planning permit issued by Council, or approved in writing by the Director City Development or his/her delegated representative.

**5. RESPONSIBILITY**

The Council will hold the permit holder/owner responsible for the satisfactory completion of the works, and for installing the vehicle crossing to the correct levels and to Council's specifications and requirements.

**6. INSPECTIONS**

Council will conduct 2 inspections of the vehicle crossing works. A minimum of 24 hours notice shall be given as to when the works will be ready for inspection. Approval will not be given, unless the permit holder is on site at the time of the inspection. No concrete is to be poured until the base, formwork and reinforcement has been inspected and approved.

Council's Co-ordinator Asset Maintenance, shall inspect the works after the formwork, bedding and reinforcing have been placed, prior to the pouring of the concrete.

If the initial inspection is satisfactory, the works will be signed off as being complete. Should the initial inspection not be satisfactory, the contractor has one hour to rectify the problem, and the Co-ordinator Asset Maintenance will reinspect. The pouring of concrete can proceed following the approval of the Council inspector.

Upon completion of all construction and reinstatement works, a final inspection will be undertaken following completion of all works, and signed off accordingly.

**7. WORKING HOURS**

The contractor shall perform and execute the works described in the specification from Monday to Friday inclusive (Public Holidays excluded) only, and between the hours of 8.30am and 3.30pm daily.

In exceptional circumstances, the Co-ordinator may allow the work to be performed outside normal office hours as specified, provided:

- A written request is submitted with at least 24 hours prior notice;
- A supervisor/co-ordinator is available;
- The Owner/Contractor agrees to pay all additional charges, wages and other costs incurred by Council by agreeing to this request.

## 8. DESCRIPTION

All vehicle crossings shall be constructed in accordance with the following Manningham Council standards, and may vary depending on the individual circumstances;

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| • Vehicle Crossing (barrier kerb and channel)         | S240; |
| • Vehicle Crossing (cross section details (barrier))  | S241; |
| • Vehicle Crossing (rollover kerb and channel)        | S242; |
| • Vehicle Crossing (cross section details (rollover)) | S243; |
| • Typical Main Road Vehicle Crossing                  | S244; |
| • Typical Main Road Vehicle Crossing (Double)         | S245; |
| • Rural Vehicle Crossing (overtable drain)            | S246; |
| • Standard Layback – (barrier kerb and channel)       | S247; |
| • Expansion and Contraction Joints                    | S248; |
| • Typical Parking Indent                              | S249. |

The Standard Layback, S247 is to be installed to Council's specifications and requirements, where an alternative crossing is to be installed.

Vehicle crossings on the following roads are to be constructed with a wide display on the approach side to provide ease of entry to the property, in accordance with the appropriate standard drawing:

### Council Arterial Roads

- Bulleen Road (Manningham – Bridge);
- Manningham Road (Bulleen – Williamsons);
- Bridge Street;
- Thompsons Road;
- High Street (Doncaster – Manningham);
- High Street (Manningham – Foote);
- Old Warrandyte Road (Springvale – Mullum M ullum Creek);
- Doncaster Road;
- Fitzsimons Lane;
- Williamsons Road;
- Templestowe Road;
- Union Street (Parker – Foote);
- Parker Street (Union – Swilk);
- Swilk Street;
- James Street;
- Andersons Street (James – Porter);
- Porter Street (Andersons – Newmans);
- Newmans Road;
- Warrandyte Road;
- Foote Street;
- Reynolds Road (Foote – Springvale);
- Blackburn Road (King – Koonung Creek);
- King Street;
- Victoria Street;
- Elgar Road;
- Tram Road;
- Wetherby Road;
- Springvale Road (Reynolds – Freeway);
- Andersons Creek Road;
- Yarra Street;
- Ringwood-Warrandyte Road; and
- Croydon Road.

Approval is to be obtained from VicRoads for vehicle crossings to be constructed abutting State Highways. The following roads are listed as State Highways;

- Manningham Road West;
- Manningham Road (Bridge – Bulleen);
- Bulleen Road (Manningham – Freeway); and
- Springvale Road – (Freeway to Municipal boundary).

**9. WORKMANSHIP AND MATERIALS**

All materials used shall be the best of their respective kinds and the works shall be carried out in a neat and workmanlike manner.

**10. REMOVAL OF EXISTING WORK**

Where no allowance has been made in the kerb for a vehicle crossing, the Contractor shall remove the complete kerb and channel section between the nearest joints outside the tangent points of the crossing.

The removal of the kerb and channel should be carried out from the nature strips side of the kerb and channel after excavation of the nature strip has been completed.

All care will be taken to prevent damage to the road pavement by slip. If the boxing is left overnight, the edge of the pavement will need to be supported by adequate timbering. The whole of the excavated crossings shall be adequately protected by lights and barricading to the satisfaction of Council's Co-ordinator – Asset Maintenance.

Where the footpath is existing, unless at least 125mm thick and reinforced in accordance with Clause 17 of the specification, the Contractor shall remove all concrete between the nearest joints outside the limits of the crossing. All works removed, and outside the limits of the crossing, shall be replaced in complete accordance with these specifications.

Where a dish channel and layback kerb has been constructed in place of kerb and channel for an entrance to this lot, and the opening will not be used for the works under this permit, the Contractor shall remove the open dish channel and layback kerb and replace with kerb and channel as part of, and in conjunction with, the construction of the new crossing. This kerb and channel shall be constructed in accordance with Council's current specification for the construction of 'Barrier Kerb and Channel', as per Council's specification S203.

All broken concrete, surplus spoil, and other waste materials are to be removed from the site, by the Contractor.

**11. WATER SERVICES/UTILITY ASSETS**

When vehicle crossings are to be continued over a water service and mains junction, the service pipe shall be retapped clear of the crossing and the necessary reconnection of the service to the property concerned, shall be carried out in accordance with Yarra Valley Water requirements. All costs of the re-tapping and reconnection of the service, shall be borne by the Owner/Contractor.

The permit holder is responsible for obtaining information on location and depths of all services located in the road reservation and for all costs related to necessary alterations to these services as a result of installation of the vehicle crossing(s).

**12. DOUBLE CROSSINGS**

Where 2 adjacent driveways are less than 1.80 metres apart, provisions shall be made for a double vehicle crossing as per standard specification S240 or S242.

All concrete between crossings in front of the property for which the permit refers, shall be constructed as part of the permit work together with reinstatement of the kerb and channel and layback as the case may be.

**13. SKEW CROSSINGS**

The width of the skew crossings shall be measured along the line of the back of the footpath and not perpendicular to the driveway.

Skew Vehicle Crossings shall be constructed in accordance with Council's specifications, S240 and S242.

- 14. ALTERATION TO EXISTING PITS, POLES ETC**  
 The vehicle crossings shall be sited no closer than 1.0 metre to any significant item of street furniture, drainage or sewerage pit or other public authority assets, unless otherwise approved. Generally, vehicle crossings shall be relocated or angled to avoid interference with existing pits, poles, valves etc. If such interference is unavoidable, the owner will be responsible for the cost of all alterations, additions, relocation and replacement of any asset. This is subject to approval being granted by the Director City Development or his delegated representative, and/or to responsible utility owner.
- No vehicle crossing is to be constructed in the vicinity of a tree located in the nature strip/road reserve area. Any proposed vehicle crossing is to be clear of the street tree canopy dripline, and should this not be achieved, the Manager City Parks is to be consulted, to advise on suitable clearances in order to protect the tree and Council's interests.
- Existing junction pits shall be lowered and the appropriate size and type of 'gatic' cover and frame fitted: the top of the cover being set flush with the surface of the new crossing.
- Permission may be granted by the Council -ordinator –Asset Maintenance to convert the existing side entry pit to a junction pit, and fit a suitable gatic/heavy duty cover.
- If the alteration to plant owned by the various authorities is necessary, the Contractor or owners shall make the required arrangements with the relevant authority, and the owners shall pay the actual cost of the alteration incurred.
- All housed drains agricultural drains, conduits, etc. damaged during construction of the crossings shall be repaired or reconstructed to the satisfaction of Council's Council -ordinator Asset Maintenance at the Applicant's expense.
- 15. FOUNDATION**  
 The sub -grade shall be formed at the required depth in accordance with the plans and cross -sections. All soft and unsuitable material shall be removed, and the sub -grade shall be thoroughly compacted and finished to a firm, smooth surface and uniformity.
- A permit is required to be issued by the Health and Local Laws unit in order for any excavated material to be stored within the road reserve. No materials are to be stored on the road pavement.
- 16. BEDDING**  
 The bedding for the crossings shall be a 50mm consolidated layer of fine crushed rock. The sub -base and the fine crushed rock bedding shall be completed to a density satisfactory to Council's Council -ordinator –Asset Maintenance.
- 17. REINFORCING**  
 The crossing shall be reinforced with a layer of F62 fabric, which shall be laid 50mm below the finished surface. The fabric shall be clean and free from rust and grease and shall be laid with a minimum lap of 300mm. Concrete thickness to be increased by 50mm, when crossings are to be used for Industrial, Commercial or other heavy duty applications, and shall be reinforced with F62 fabric top and bottom with 50mm cover. Refer to Council's standard S241 & S243.
- 18. STRENGTH PRE -MIXED CONCRETE**  
 Must be supplied by a recognised and reputable ready mixed concrete supplier and conform to Australian Standard AS 1379 -1997, and have a minimum strength of 25MPa at 28 days (Residential Vehicle Crossings). If required by the Council -ordinator –Asset Maintenance, documentary or other acceptable evidence of the quality of the cement, shall be furnished by the Contractor.
- 19. FORMWORK**  
 All formwork shall be so designed and constructed that they can be removed, without damaging the concrete. Formwork shall be mortar tight, and if necessary shall be thoroughly soaked with water to close cracks due to shrinkage.
- Formwork shall not be removed sooner than 24 hours after placing the concrete. Following the removal of the formwork, the abutting area must be backfilled, and levelled immediately.

**20. PLACING CONCRETE**

Premixed concrete shall consist of a mixture of 20mm maximum size aggregate, washed sand and Portland cement. Sufficient water shall be added at the batch plant to provide a slump of not less than 40mm, and not exceed 75mm at the time of pouring. No water is to be added after it leaves the batch plant. The strength of the concrete shall not be less than 25MPa at 28 days. Every batch of concrete transported in a truck agitator shall be delivered and placed before rapid stiffening of the concrete develops, but in no case shall the time exceed 1.5 hours after the introduction of water to the mixture.

**21. COMPACTION**

All concrete shall be compacted both manually and by use of a vibrating plate to the satisfaction of the Co-ordinator/Asset Maintenance.

**22. SURFACE FINISHING**

Before the concrete has initially set, a suitable tool shall be used to produce a rounded edge against all forms. This rounding off tool shall have a radius of 12mm.

The surface of the concrete shall be finished off within twenty minutes of pouring the concrete.

Floating shall be done with a steel float, and an even coarse, non-skid surface, as distinct from a smooth polished surface, with a 50mm smooth border round each slab shall be produced to the entire satisfaction of Council's Co-ordinator/Asset Maintenance. **RENDERING OR DRIERS ARE NOT ALLOWED.**

**23. CURING**

No vehicle shall use a newly poured crossing for at least 36 hours from the time of pouring to allow the concrete to attain a satisfactory strength. An approved curing compound may be applied in the summer months.

All crossings are to be protected from harsh weather conditions whilst curing either by covering with hessian or spraying with approved curing oils.

The Owner/Contractor responsible for carrying out the works assumes responsibility for any damage sustained by the crossing, and is liable for any repair works required.

**24. CONTRACTION AND EXPANSION JOINTS**

a) Contraction Joints – shall be formed in the crossing in accordance with the standard drawings or as directed. The contraction joint is to be 5mm wide (minimum) and to a depth of 20mm, using an approved grooving tool.

b) Expansion Joints – shall be located at the nearest joint in the footpath on either side of the crossing and at the property boundary, where the crossing abuts the concrete driveway. Expansion joining material shall extend the full width and depth of the paving.

**25. THICKNESS**

The minimum thickness of the concrete in the standard (residential) crossings shall be 125mm at the footpath and kerb and channel. This shall be increased if directed by the Co-ordinator/Asset Maintenance.

The minimum thickness of the concrete in the footpath outside the limit of the crossings shall be 75 millimetres.

**26. ALTERNATIVE TYPE CROSSING IN PERMANENTLY CONSTRUCTED STREETS WITHOUT FOOTPATHS**

Alternative surface treatments between the existing concrete kerb and channel and the property line may be constructed and may include blue stone pavers, bricks (solid only), paving stones (interlocking or otherwise), fine crushed rock base with prime and seal or bituminous surfacing or any other uniform and generally impermeable material. (timber or sleepers not permitted) as may be approved by Council's Co-ordinator/Asset Maintenance. The profile of the crossings shall be in accordance with the standard plans, and to the following requirements:

a) Layback – the removal of all existing work shall be as per Clause 10, and a layback constructed in accordance with plan S247. Clause 15 and 16 to 30 incl. shall apply for the construction of any concrete works carried out under this section.

- b) Where a 'Layback Only' is involved, the owner is required to sign an agreement regarding the completion of the crossing within 90 days from the date of notification. Failure to complete the work by the said date, may result in further action being taken by Council.
- c) Crossing Construction – the above base materials and pavement make-up sections are to be adopted for work carried out under this section, though variations may be permitted with the approval of Council's Co-ordinator Asset Maintenance.

**27. BARRICADES, LIGHTS, WARNING SIGNS PROVISION FOR TRAFFIC**

The Contractor shall supply and erect and maintain any barriers, signs, light set to ensure the safety of all traffic, both vehicular and pedestrian and to protect the works from damage, in accordance with Vic Roads Roadworks Signing Code of Practice.

**28. DAMAGE TO ROADS, ETC.**

Any damage caused to any Council asset through the transport of materials for these permit works shall be repaired/reinstated at the Applicant's expense, and to the satisfaction of Council's Director City Development, or his/her delegated representative.

The Owner/Contractor responsible for the works shall not place or dump construction materials on the road pavement, kerb and channel or footpath, and shall keep such places clear at all times. The mixing of mortar or rendering on the road or footpath, and the washing down of delivery vehicles is strictly prohibited.

**29. CLEANING UP**

Upon completion of the work, the Contractor shall remove all surplus material from the site and reinstat the nature strip with a minimum of 100mm topsoil and seed. The Contractor shall reinstate any damaged road pavement along the road/crossing interface to the satisfaction of the Manager, Manningham Maintenance or his/her representative.

**30. EXISTING APPLIANCES, VALVES ETC.**

All valves, fire hydrants, plugs, or equipment of any statutory shall be serviceable at all times during the currency of these works. It shall be the responsibility of the contractor to ensure that no filling is placed over any appliance and to notify both the Manager, Manningham Maintenance and the Responsible Authority concerned of any damage, alteration in level or location of any such appliance.

**31. PENALTIES**

Failure to comply with these instructions shall render the Permit invalid, and appropriate action taken against offenders by the Council.

**32. MAINTENANCE OF VEHICLE CROSSING**

In accordance with Manningham's General Law 2003, Part 9(9.4), it is the owner's responsibility to maintain the vehicle crossing in a condition satisfactory to Council. Where it appears to Council that the crossing is in a state of disrepair, or otherwise is an unsatisfactory condition Council may serve on the owner of the land a notice in writing, requiring him/herself to effect such repairs as specified in the notice.

**33. STREETS WITH CONSTRUCTED PARKING BAYS**

Where a crossing is to be constructed and which may interfere with the location of a parking bay, the Manager, Manningham Maintenance or his/her representative will determine the extent of work that is to be carried out by the applicant, and at his/her cost during the construction of the vehicular crossing.

**34. CROSSINGS CONSTRUCTED WITHOUT A PERMIT**

If a vehicle crossing is constructed without a permit, without Council supervision, or has not been properly constructed to Council standards, the Council may require the Owner/Contractor to reconstruct the crossing or completely remove the crossing and reinstat the footpath, kerb and channel in accordance with the provisions of Schedule 10 of the Local Government Act 1989.