



Vehicular Crossing **Specification**

HORNSBY SHIRE COUNCIL

**Prepared by the
Design and Construction Branch**

(March 2017)



HORNSBY SHIRE COUNCIL VEHICULAR CROSSING SPECIFICATION

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PART 1. INTRODUCTION

1.1. Objective

To ensure uniformity in the design and construction of vehicular crossings so that safe and convenient vehicular access to and from parking spaces within a property can be provided.

1.2. Scope

This specification covers all aspects of vehicular crossing construction in Hornsby Shire. It includes the approval process, standards for construction and who is allowed to construct vehicular crossings.

This Specification applies to all residential, commercial, and industrial properties where a vehicular crossing is required.

Vehicular crossings in this Specification, refers to the formal vehicular platform between the kerb line and the property boundary line.

Where a vehicular crossing forms part of a Development Application the issuing of a Development Consent does not automatically guarantee approval of the proposed vehicular crossing. Development Approval relates only to works within the property. Works in the road reserve can only be confirmed when a formal Crossing Application is lodged with Council and written approval is issued by the Crossing Engineer. See 3.11.2.

1.3. Persons who can construct a vehicular crossing

Vehicle crossing can be constructed by either Council or Council's approved authorised contractors, to ensure that construction is to a reasonable standard and uniformity. A quote from Council can be obtained by contacting Council's Customer Service Team on 9847 6666 or visit Council's [Vehicular Crossings web page](#) to "View list of Authorised Contractors".

See Section 3.10 for information on how to become an authorised contractor.

1.4. Definitions

Below is a list of standard definitions used in this specification and generally used by Council staff. In some instances several words may be used to describe the same thing.

Vehicular Crossing	The footway area between the road kerb (or table drain where no kerb exists) and the property boundary where a vehicle can access a property.
Road Reserve	The section of land that includes the carriageway, and footway on both sides of the carriageway, usually measured from property boundary to property boundary.
Layback	The section of kerb that has been removed and replaced in concrete to allow easy vehicle access. Also known as a gutter crossing.
25 MPa	Concrete strength, in mega-pascals, after 28 days in accordance with AS1379
CBR	California Bearing Ratio - a measure of strength for material on which a pavement is laid.
Table drain	An earth gutter where there is no concrete kerb and gutter.
Invert	The low point in the gutter – adjacent to and below the kerb.

Crossfall	The slope at right angles to the alignment given to the surface of any part of the carriageway - usually expressed as a percentage.
Carriageway	The portion of the road reserve devoted to the use of vehicles inclusive of road shoulders and auxiliary lanes.
Grade (Gradient)	The rate of longitudinal rise or fall of a carriageway - usually expressed as a percentage.
Property Line	The boundary line between a road and the adjacent land.
Gutter Crossing	See layback.
Formwork	Wooden (sometimes steel) boards used as a mould to contain fresh concrete in the correct position. The formwork is removed once the concrete has cured (hardened).
Footway	The area of the road reserve between the kerb and the property boundary, also known as the naturestrip.
Headwall	Concrete support at the end of a pipe. For crossings these are used in some locations (mostly rural) to support the pipe and road material over the pipe.
Backfill	Material used to fill an area to the correct level. Backfill will be roadbase or soil depending on the proposed purposed.
Roadbase	A graded rock material used to create a base for a road seal (asphalt, concrete or flush seal). Also used as backfill for any depressions before pouring concrete or laying asphalt.
Naturestrip	See footway

PART 2. TECHNICAL DETAILS

2.1. Types of Driveways

Council allows driveways to be constructed in:

1. Plain concrete (with broom or wood float finish).
2. Coloured concrete (see 2.4.1)
3. Stencilled/stamped concrete
4. With Pavers (see 2.4.10 for types of acceptable pavers)

2.2. Driveway Locations

A vehicular crossing will not be permitted in the following circumstances:

- Onto a major road if reasonable access can be gained from another public road of lower classification;
- Opposite or within 6.0 metres of a median in a major road;
- Within 25.0 metres of a signalised intersection*;
- Within 9.0 metres at non-signalised intersections*;

** Access may be permitted provided that it is safe to do so and that it can be demonstrated to Council's satisfaction that extenuating circumstances exist, for example, where this is the only point where access can be gained.*

The above distances are measured perpendicular from the face of the kerb of the intersecting street (prolongation of the kerb line or tangent point if curved).

A driveway will not be permitted if the proposed parking space within the property between the boundary and building line is less than 5.5m in length, thereby causing a parked vehicle to encroach onto the footway.

Vehicle access shall be located so that minimum sight distances to traffic and pedestrians can be provided. Sight distance to pedestrians shall be met by providing clear sight lines in accordance with AS/NZS 2890.1 Parking Facilities, Part 1: Off-street car parking. Vehicle crossings should not be located where trees exist or too close to the root zone of trees, or too close to power poles where undermining may occur, or other structures that may obstruct sight lines.

Access shall be located so that sight distances are not affected by existing structures such as street trees, earth mounds, bus shelters, and other physical features. Council may not approve the location of such an access if the location will adversely affect sight lines or detracts from the streetscape of the area.

In some circumstances, Council may grant approval for the removal or relocation of these structures, where there is no alternative driveway location. In such a situation, approval must be sought from Council's Crossing Engineer and other sections of Council as required. All costs associated with such work shall be borne by the applicant.

All vehicular crossings must be clear of existing stormwater inlet pits. The removal or reduction in the length of the pit lintel or grating is not allowed, as this would reduce the rate of stormwater collection. However, excluding existing pits located in a depression (sag), if the hydraulic characteristics of the drainage system are not made less efficient, the relocation of the pit may be permitted. Hydraulic calculations from a registered Civil/Hydraulics Engineer showing no adverse impact on Council's Stormwater system may be required. All costs associated with engaging an Engineer shall be borne by the applicant.

If relocation of a Stormwater structure is approved, Council will undertake the works of pit relocation or nominate an approved contractor. All costs associated with the relocation/modification of the stormwater system shall be borne by the applicant.

2.3. Existing Crossings

Existing crossing slabs and laybacks may be re-utilised if;

- The crossing has previously been approved by Council; or
- They are in the correct location, set at the correct levels and in reasonable condition, and;
- Its retention is not contrary to this Specification.

Otherwise, the crossing and layback must be removed. Where the crossing slab and layback is made redundant, it shall be completely removed and the footway area restored to Council's satisfaction. Any existing un-used crossing(s) and/or layback(s) must be removed and the kerb and footpath reinstated/restored at the owners expense to the satisfaction of the Crossing Engineer.

2.4. Driveway Details

The crossing must be constructed at right angles to the kerb unless, due to exceptional circumstances and after individual assessment, the Crossing Engineer authorises otherwise.

No part of a crossing may be constructed in front of a neighbouring property without the approval of Council's Crossing Engineer.

Residential developments are permitted a maximum of one (1) vehicle crossing for vehicle access. Commercial/industrial and multi unit developments will be assessed on their merits.

2.4.1. Finish & Colour

Laybacks can only be constructed in plain concrete. The remainder of the crossing can be constructed using an oxide colouring fully mixed in the concrete (no topping layer). Council allows light brown/yellow and black oxide colouring.

The finishes must be either plain concrete or a flat stamped concrete with an even surface. Cobble (raised) type effects are not allowed as they can be trip hazards. Exposed aggregate (pebblecrete/crushed granite) is not allowed.

Approval is required from the Crossing Engineer before construction for all concrete crossings not using plain concrete or a smooth broomed finish.

All concrete must be finished true to the formwork and the edges finished with an appropriate edging tool. All concrete surfaces shall be finished true and even, free from air and stone pockets, depressions and projections. The concrete shall be tamped and screeded to the correct surface levels and shall be given an even non-skid finish.

Standard concrete finishes are to be soft broom finished in the direction of the kerb and gutter unless it has a gradient steeper than 1 (vertical) to 5 (horizontal), where it shall be finished with a wooden float and then grooved (ensure grooves do not create tripping hazard to pedestrians). The path section behind the apron shall be soft broom finished across the path. All edges of the slab shall be rounded with a 50mm edging tool.

2.4.2. Width

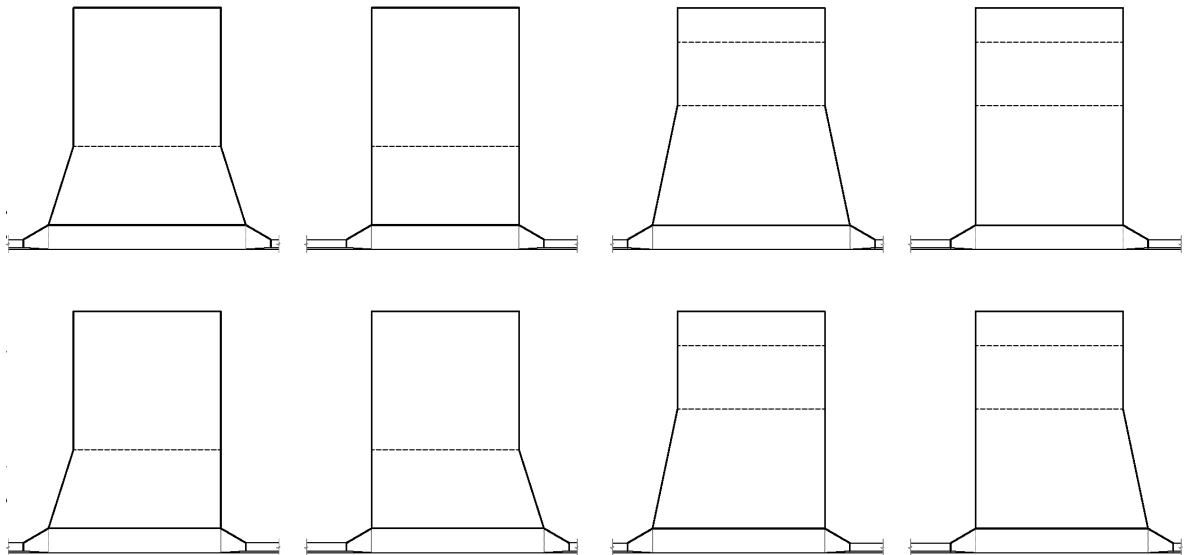
Crossing widths, excluding wings, are as follows:

Type	At kerbline	At Boundary
1. Residential	3.5m to 4.5m	2.5m to 3.5m
2. Commercial	6.0m to 6.5m	6.0m to 6.5m
3. Industrial	see Crossing Engineer	

In some circumstances variations on the above are required and must be approved by the Crossing Engineer.

2.4.3. Splays

Splays are allowed adjacent to the kerb to allow for easier turning in and out of the crossing. Splays are to be set out as shown below.



The standard splay width is 500mm. Wider splays are to be assessed by the Crossing Engineer.

Driveways must be constructed at right angles to the kerb and cannot splay in the reverse across the naturestrip. The driveway shape may not be skewed at an angle across the naturestrip without individual assessment and approval from Council. See the sketch above.

2.4.4. Thickness

All driveways shall have a concrete slab using 20 MPa concrete of the following thickness:

1. Concrete Residential	125mm with one layer of SL62 mesh
2. Paver Residential	100mm no reinforcement required
3. Residential Heavy Duty Concrete	150mm with one layer of SL82 mesh
4. Heavy Duty Concrete Commercial	200mm with two layers of SL82 mesh

2.4.5. Construction and expansion Joints

All crossings are to have full depth expansion joints as shown in the drawings in section 2.14. Dummy joints are to be used as shown in section 2.14.

Construction and expansion joints shall be provided to the full depth of the slab, as shown in section 2.14, where required or as directed by the Crossing Engineer. The joint shall be filled with a 12mm thick bitumen impregnated material such as a compressible mastic board. Other types of jointing material can only be used at the approval of the Crossing Engineer.

Expansion joints shall separate the concrete apron from the driveway area that it adjoins, that is, in the line with the leading edge of the path.

Concrete footpaths of a standard width of 1.2 metres, shall have expansion joints every 3.6 metres with dummy (tooled) joints to match existing pathways or at 1.2 metre intervals, unless specified otherwise by the Crossing Engineer. Generally dummy (tooled) joint spacings should match the adjoining pavement. For large area replacements, the width of the approved path shall be the spacing of the dummy (tooled) joints.

All concrete must be finished true to the formwork and the edges finished with an appropriate edging tool.

2.4.6. Subgrade

All crossings are to be poured on a suitable subgrade. Excavation is to be to the full depth required for the specified thickness of the proposed crossing slab (see Section 2.4.4). In unstable foundation material (CBR less than 5), additional excavation shall be carried out and a sub-base of 20mm fine crushed rock, or other approved material, to a minimum depth of 75mm consolidated thickness, shall be provided.

Where filling under the proposed concrete is necessary, such filling shall consist of granular material of maximum size of 40mm and shall be spread in layers of a maximum thickness of 150mm and consolidated to provide a 95% compaction when tested under the modified proctor method.

2.4.7. Concrete

All vehicle crossing slabs and laybacks are to be constructed in concrete with a minimum compressive strength of 20MPa at 28 days.

Ready mixed concrete conforming to AS1379 shall be used. The Contractor is to arrange for certificates by the manufacturer to be given for all concrete delivered and shall be able to produce these to the Crossing Engineer upon request.

2.4.8. Slip resistance

All finished surfaces are to be non slip in accordance with AS4586 (Slip resistance classification of new pedestrian surface materials) and AS 3661.1 (Slip resistance of pedestrian areas). If a crossing does not comply with these standards it will not be finalised.

2.4.9. Clearance

Crossings must be at least 1m clear of any post, pole, tree or stormwater pit unless specifically authorised by Council's crossings inspector due to exceptional circumstances. Stormwater outlets must not be located in the layback. Also see Section 2.2.

2.4.10. Paver types

Pavers are to be of a standard to withstand a traffic load in accordance with the table below. Generally these pavers are 100mm thick. A copy of the paver specification showing compliance with the following standards is to be forwarded to the Crossing Engineer prior to laying the pavers.

Characteristics	Australian Standard	Minimum	Maximum
Abrasion resistance	AS/NZS4456.9	-	3.5cm ³
Compressive strength (concrete)	AS/NZS4456.4	45MPa	-
Characteristic Breaking load (clay pavers)	AS/NZS4456.5	5kN	-
Cold water absorption	AS/NZS4456.5	-	8%
Efflorescence	AS/NZS4456.6	-	Nil
Lime Pitting	AS/NZS4456.13	-	Nil
Co-efficient of friction	AS/NZS4586 AS/NZS3661	50 BPN	-
Transverse Breaking Load	AS/NZS4456.5	5.0kN	-

Pavers must be laid on a 25 mm sand bedding over a 100mm thick concrete (unreinforced) base slab. The crossing pavers must be laid within 30 days of the approval of the formwork for the base slab. Suitable temporary ramps are to be provided at the edges of the base slab where necessary, to eliminate trip hazards pending the laying of the pavers.

2.5. Driveway Levels

No work shall commence without the written permission from Council. All Driveway levels will be issued by the Crossing Engineer after submitting a correctly completed and fully paid application. Levels are normally issued within five working days of an application being lodged.

2.6. Public Utilities

The Authorised Contractor is responsible for determining the location of public utility mains and services and for the cost of any necessary alterations and / or repair resulting from the construction of the crossing. All protective boxes over any hydrant, gas cocks, stop valves, sewer lines, and the like shall be adjusted, in consultation with the relevant utility authority, so that they are flush with the finished surface. Proof of consultation with relevant service authorities may be required by Council.

A full search of all Public utilities/services should be undertaken by the contractor by using the Dial before You Dig service.



If, at some time after the construction of a crossing, a public authority has to remove part of the crossing to construct or maintain its installations, the crossing will be restored by Council in plain concrete, regardless of the type of finish on the remainder of the crossing. Approval to construct a crossing will not be given unless the property owner has signed the Owner's Declaration on the Application to Construct Vehicular Crossing from the Roadway to Property acknowledging this requirement.

2.7. Traffic Control

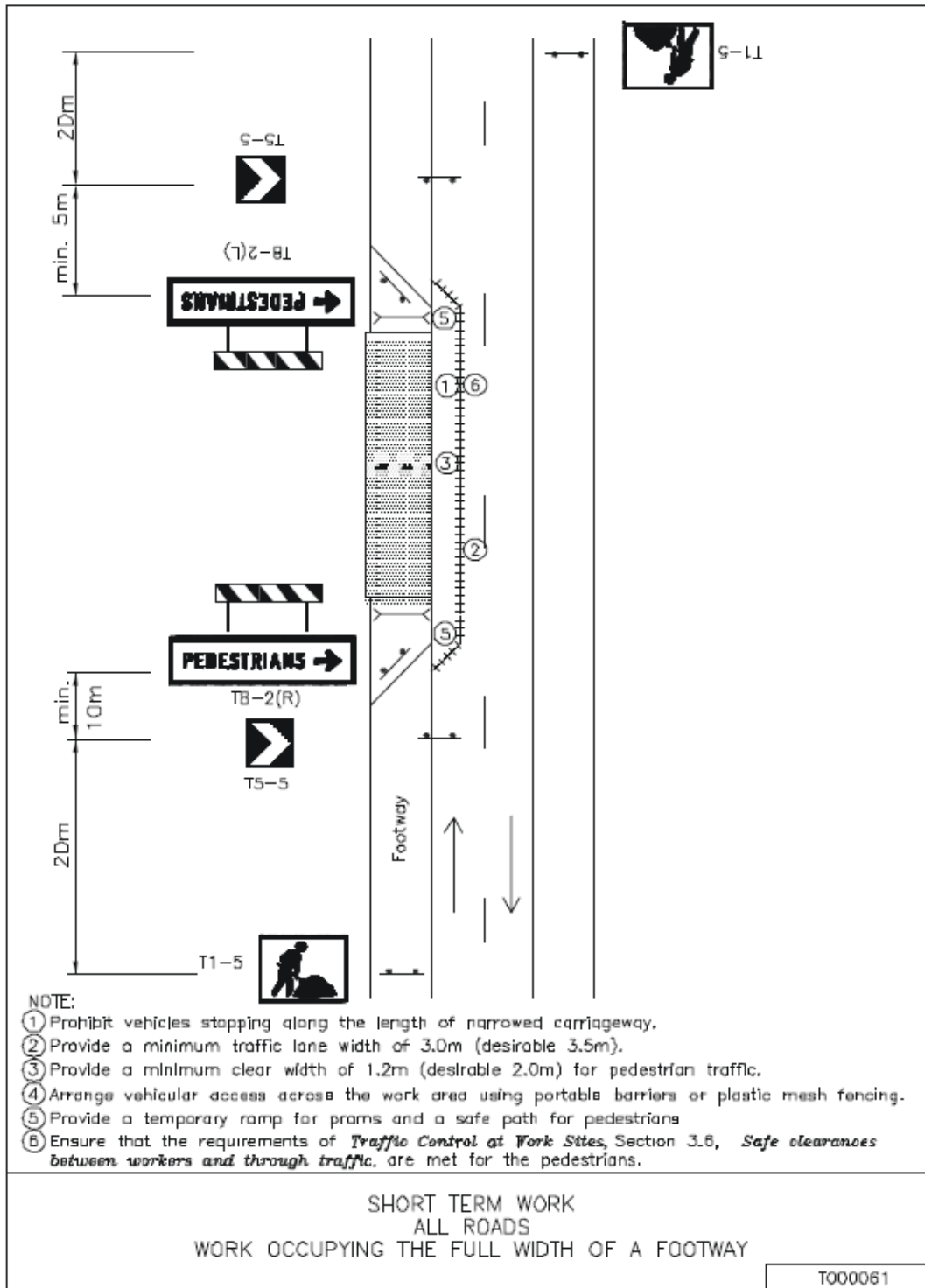
Traffic Control Plans appropriate to the construction of vehicular crossings must always be implemented for every worksite. This is to provide a safe work site for workers and the public.

Copies of the appropriate plans can be found in the RTA publication "Traffic Control at Work Sites". This publication can be found on the RTA website:

http://www.rta.nsw.gov.au/doingbusinesswithus/downloads/technicalmanuals/tcwsv4_dl1.html

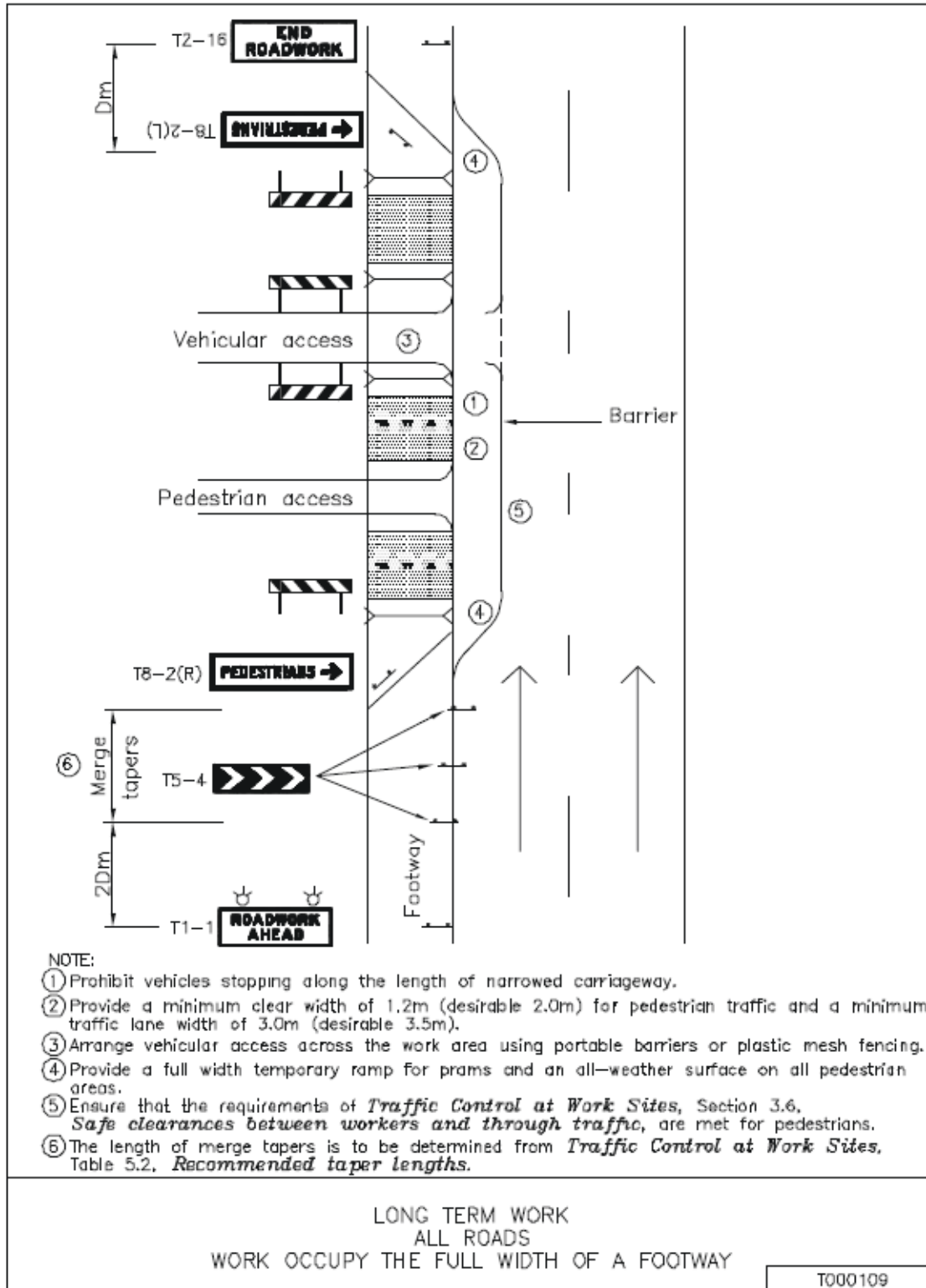
RTA TCP 61 and TCP 109 are shown as minimum treatments required when constructing a vehicular crossing.

Traffic Control at Work Sites



TCP 61

Traffic Control at Work Sites



TCP 109

2.8. Public Safety

The contractor shall be liable for any accident, damage or injury to persons or property resulting from the work until such time as final approval is given by Council. Where pavers are used, the authorised contractor will be liable till the final approval is given. It is the authorised contractor's responsibility to ensure that appropriate barricades and signage is maintained until final approval. In this regard, the Contractor must have appropriate and current public liability insurance to this effect.

2.9. Acts and Legislation

All work carried out on Council property must comply with the following Acts and Regulations:

- Roads Act
- Local Government Act
- Local Government Regulations
- EP & A Act
- Clean Waters Act
- Occupational Health and Safety Act
- The Protection of the Environment Operations Act
- any other Acts as deemed relevant

2.10. Hours of work

All construction activities are to be restricted to the hours between 7.00am to 6.00pm Monday to Friday and 8.00am to 1.00pm, Saturday. No work is allowed outside of these hours.

Note: The Protection of the Environment Operations Act may preclude the operation of some equipment on site during these permitted working hours.

2.11. Workmanship

Council expects all authorised contractors to carry out their work in a professional workman like manner. If a contractor is repeatedly asked to rectify work, including providing sufficient pedestrian and vehicular protection, the contractor may be removed from Council's authorised contractor list. The removal from the authorised contractor list is at the discretion of Council. No refund of fees for registration as an authorised contractor will be reimbursed.

2.12. Driveway Completion

A vehicular crossing is not completed until a final inspection has been approved by the Crossing Engineer and a letter sent to the Authorised Contractor. Until final approval is given, the Authorised Contractor shall be liable for any accident, damage or injury to persons or property.

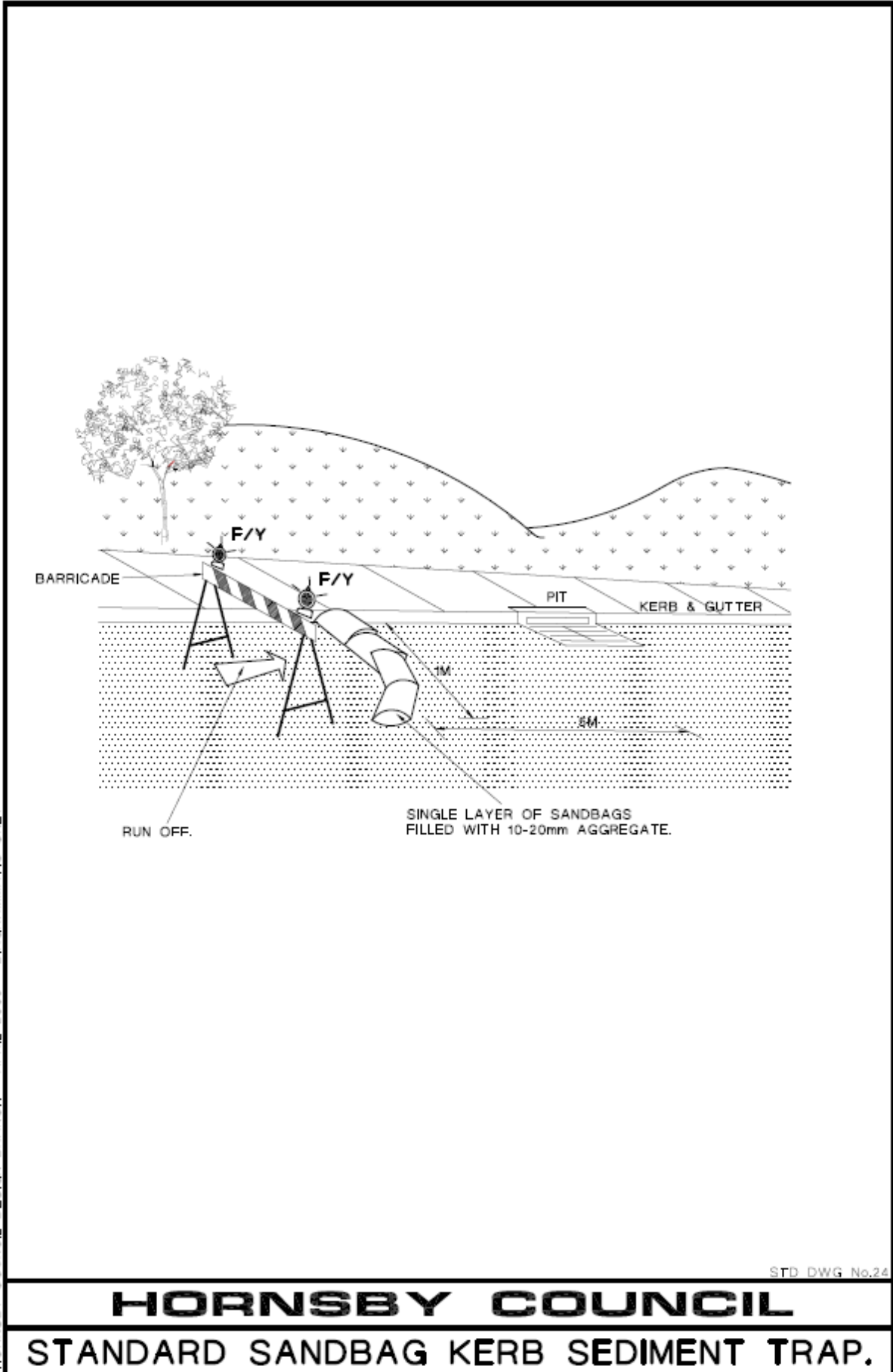
2.13. Sediment and Erosion Control

Sediment and Erosion Control Plans showing details of the construction and placement of items such as sediment fences, grass strip filters, straw bale filters and temporary kerb sediment traps are essential for all worksites.

Each site has its unique requirements for sediment and erosion control. Unless required otherwise, the minimum requirement is as follows:

1. Sediment sausages or gravel filled sandbags are to be place in the downstream gutter or table drain of all works and to be left in place until such time the crossing is completed. This includes backfilling around the edges of the new crossing and the placement of turf. See drawing "Standard Sandbag Kerb Sediment Trap" below.

Sediment and erosion control remains the responsibility of the authorised contractor until final approval is given by the Crossing Engineer.

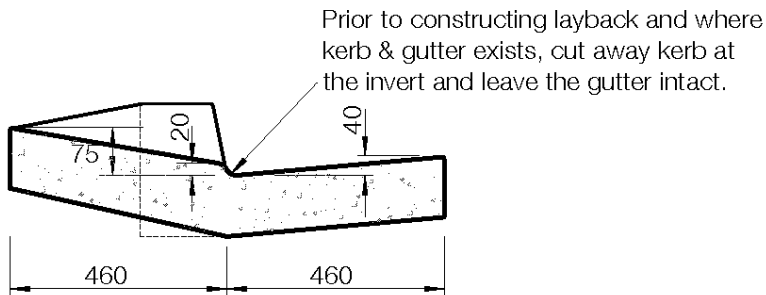
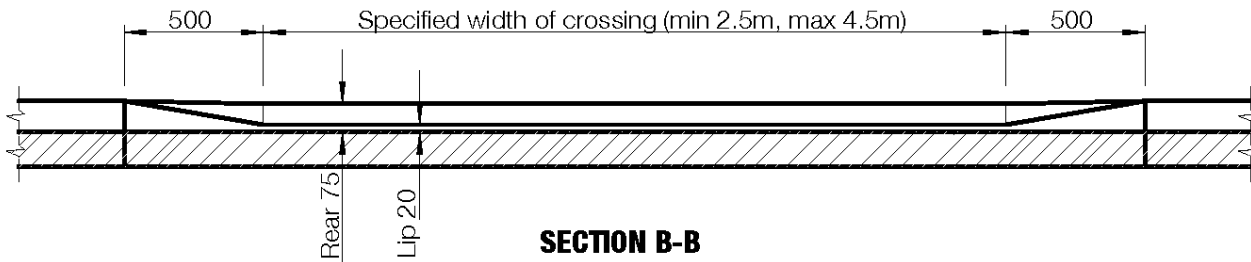
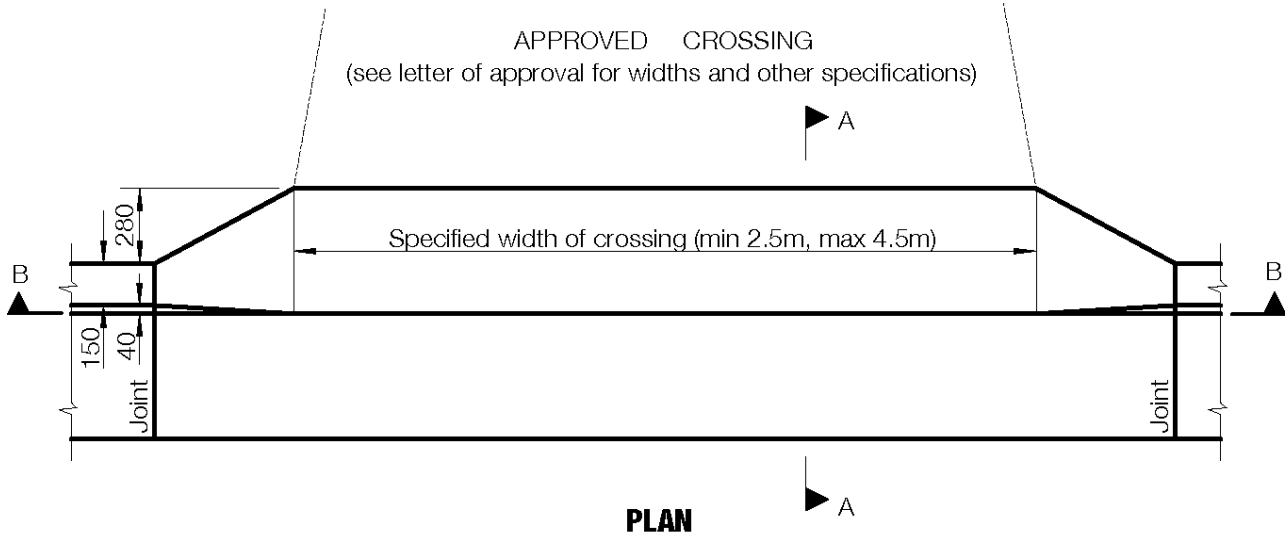


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2.14. Standard Drawings

The following drawings are to be used when constructing vehicular crossings in Hornsby Shire:

1. Standard Layback
2. Standard Crossing
3. Standard Crossing- Existing Path
4. Standard Pipe Crossing
5. Standard Rural Layback
6. Kerbside Footpath Crossing - Maximum Up
7. Kerbside Footpath Crossing - Maximum Down
8. Kerb and Guttering – Standard Types



SECTION A-A
Layback and Gutter section

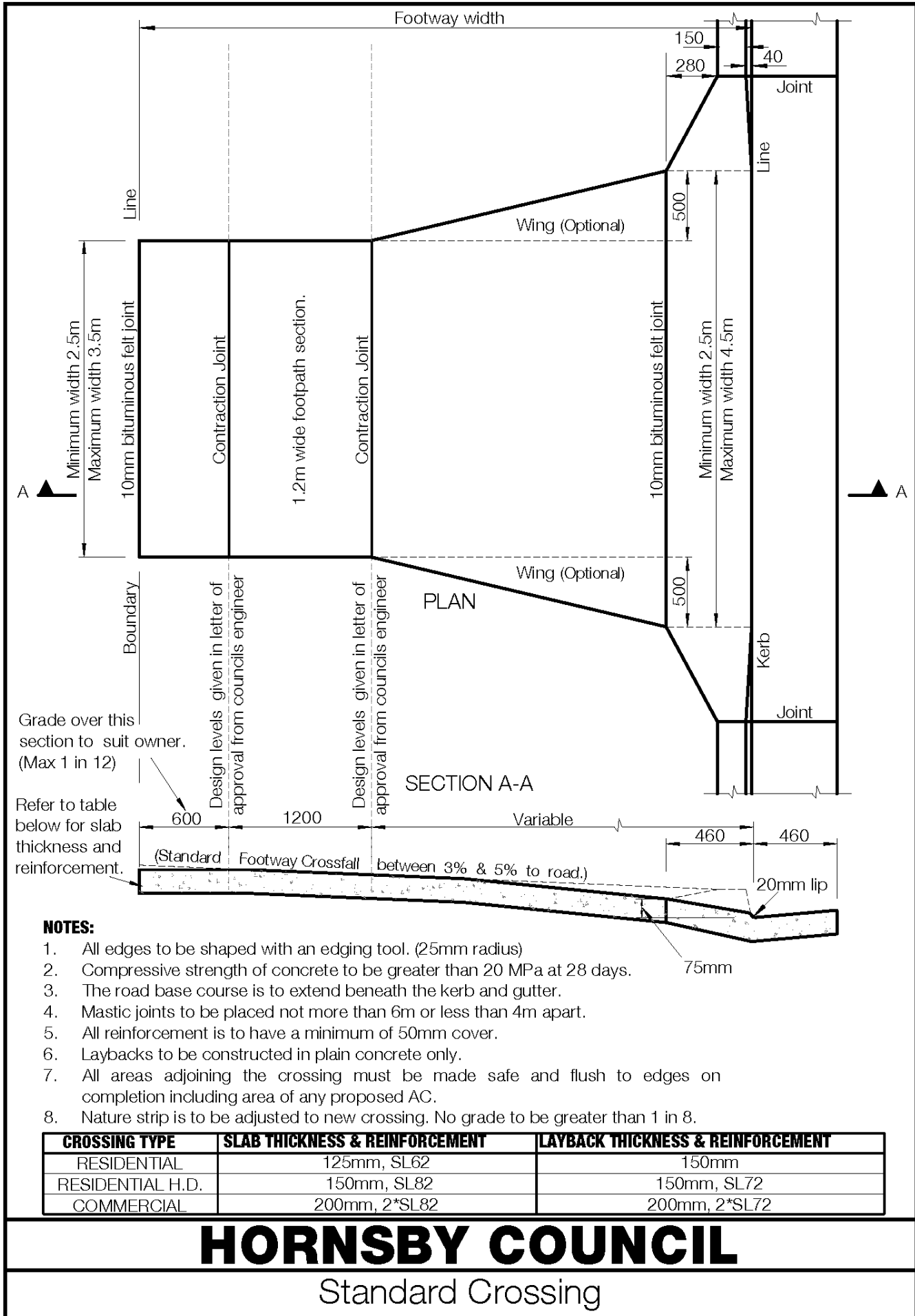
NOTES:

1. All edges to be shaped with an edging tool. (10mm radius)
2. Compressive strength of concrete to be greater than 20 MPa at 28 days.
3. The road base course is to extend beneath the kerb and gutter.
4. Mastic joints to be placed not more than 6m or less than 4m apart.

DRIVEWAY TYPE	LAYBACK THICKNESS & REINFORCEMENT
RESIDENTIAL	150mm
RESIDENTIAL H.D.	150mm, SL62
COMMERCIAL	200mm, 2*SL62

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Standard Layback



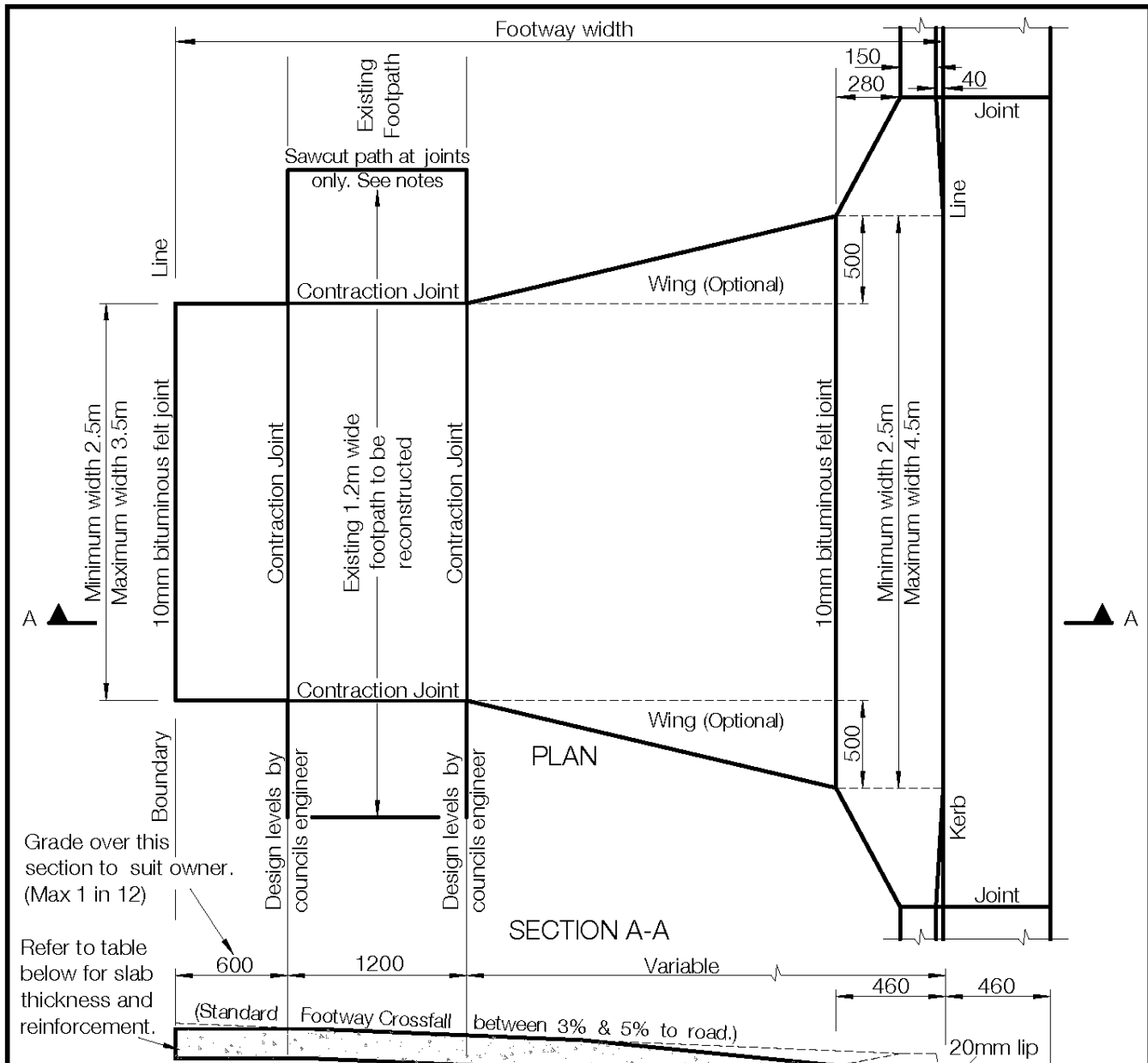
NOTES:

1. All edges to be shaped with an edging tool. (25mm radius)
2. Compressive strength of concrete to be greater than 20 MPa at 28 days.
3. The road base course is to extend beneath the kerb and gutter.
4. Mastic joints to be placed not more than 6m or less than 4m apart.
5. All reinforcement is to have a minimum of 50mm cover.
6. Laybacks to be constructed in plain concrete only.
7. All areas adjoining the crossing must be made safe and flush to edges on completion including area of any proposed AC.
8. Nature strip is to be adjusted to new crossing. No grade to be greater than 1 in 8.

CROSSING TYPE	SLAB THICKNESS & REINFORCEMENT	LAYBACK THICKNESS & REINFORCEMENT
RESIDENTIAL	125mm, SL62	150mm
RESIDENTIAL H.D.	150mm, SL82	150mm, SL72
COMMERCIAL	200mm, 2*SL82	200mm, 2*SL72

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Standard Crossing



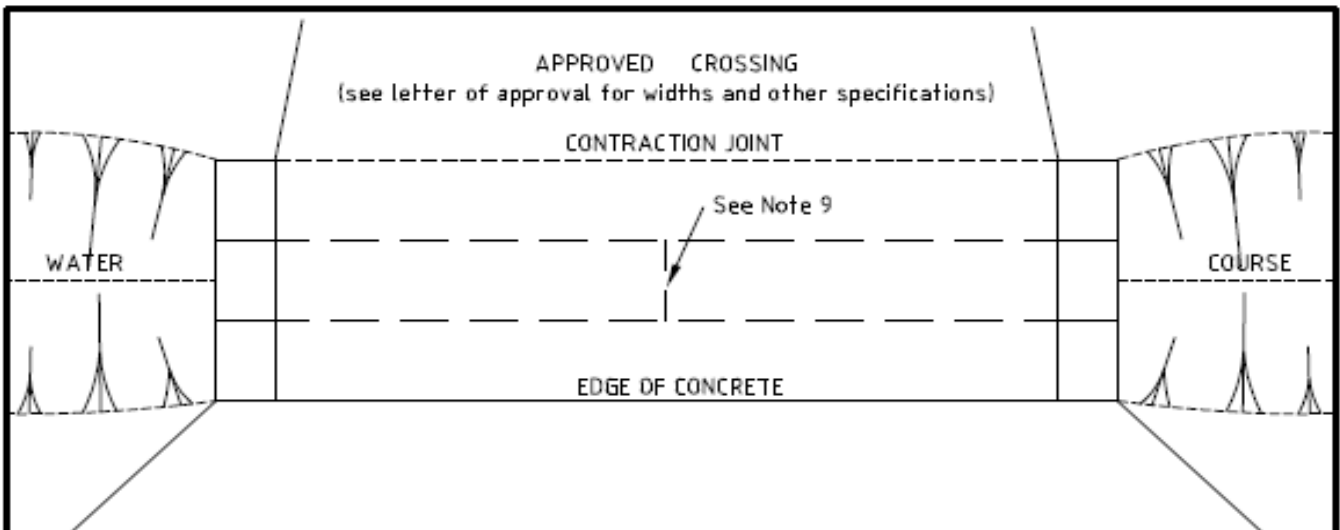
NOTES:

1. All edges to be shaped with an edging tool. (25mm radius)
2. Compressive strength of concrete to be greater than 20 MPa at 28 days.
3. The road base course is to extend beneath the kerb and gutter.
4. Mastic joints to be placed not more than 6m or less than 4m apart.
5. All reinforcement is to have a minimum of 50mm cover.
6. Laybacks to be constructed in plain concrete only.
7. Adjacent ground for all works to be within 25mm of any finished level. 65mm kerb may be required for steep adjacent grades to protect prams and wheelchairs.
8. Nature stripe is to be adjusted to new crossing. No grade to be greater than 1 in 8.
9. Reconstruct existing path to achieve a grade no steeper than 1 in 33 (A.S.1428). Where this is not possible a grade of 1 in 14 can be used for no more than 9m however further conditions will be required. See Councils crossing engineer for information and specific requirements.

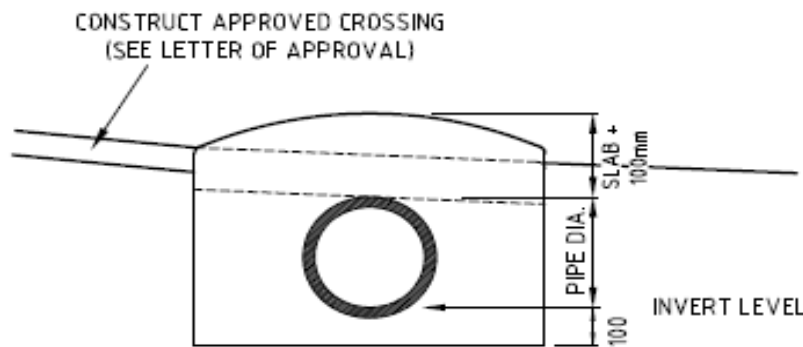
CROSSING TYPE	SLAB THICKNESS & REINFORCEMENT	LAYBACK THICKNESS & REINFORCEMENT
RESIDENTIAL	125mm, SL62	150mm
RESIDENTIAL H.D.	150mm, SL82	150mm, SL82
COMMERCIAL	200mm, 2*SL82	200mm, 2*SL82

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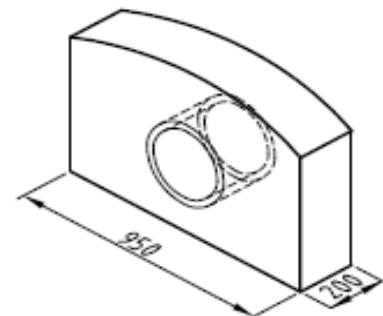
Standard Crossing - Existing Path



PLAN



END ELEVATION



ISOMETRIC VIEW

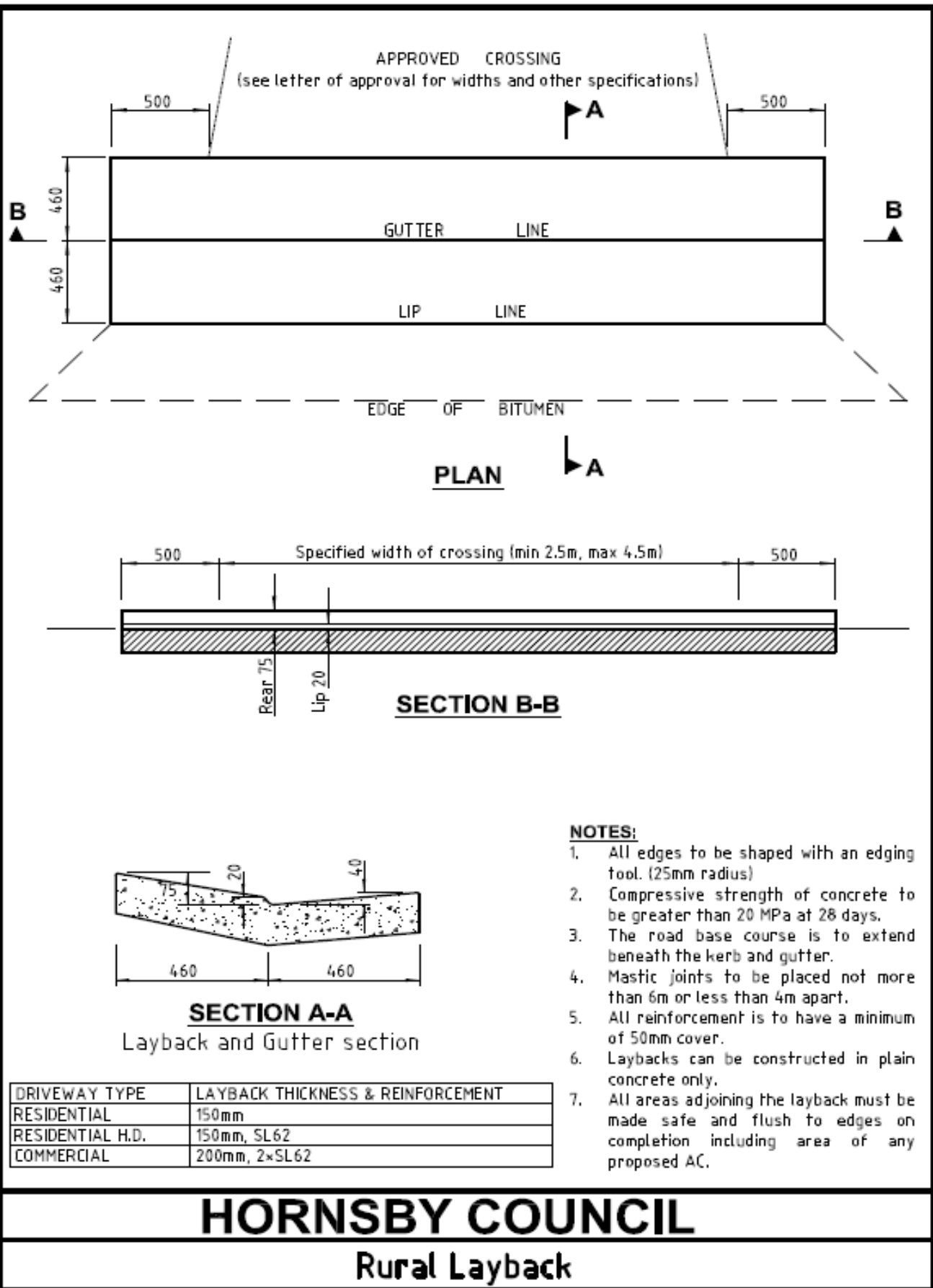
NOTES:

1. All edges to be shaped with an edging tool, (25mm radius)
2. Compressive strength of concrete to be greater than 20 MPa at 28 days.
3. The road base course is to extend beneath the kerb and gutter.
4. Mastic joints to be placed not more than 6m or less than 4m apart.
5. All reinforcement is to have a minimum of 50mm cover.
6. Headwalls can be constructed in plain concrete only.
7. All areas adjoining the crossing must be made safe and flush to edges on completion including area of any proposed AC.
8. Watercourse must flow smoothly and not be impeded.
9. Pipes must be RCP and rated for vehicle loads. The collars of the pipes are to be contained in the headwalls or cut from the pipe. Joints in pipes are to be smooth along the length and sealed with a suitable fibre tape or resin.

CROSSING TYPE	SLAB THICKNESS & REINFORCEMENT	COMPACTED BASE DEPTH	AC DEPTH
RESIDENTIAL	125mm, SL62	80mm	30mm
RESIDENTIAL H.D.	150mm, SL82	125mm	40mm
COMMERCIAL	200mm, 2 x SL82	150mm	50mm

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Pipe Crossing

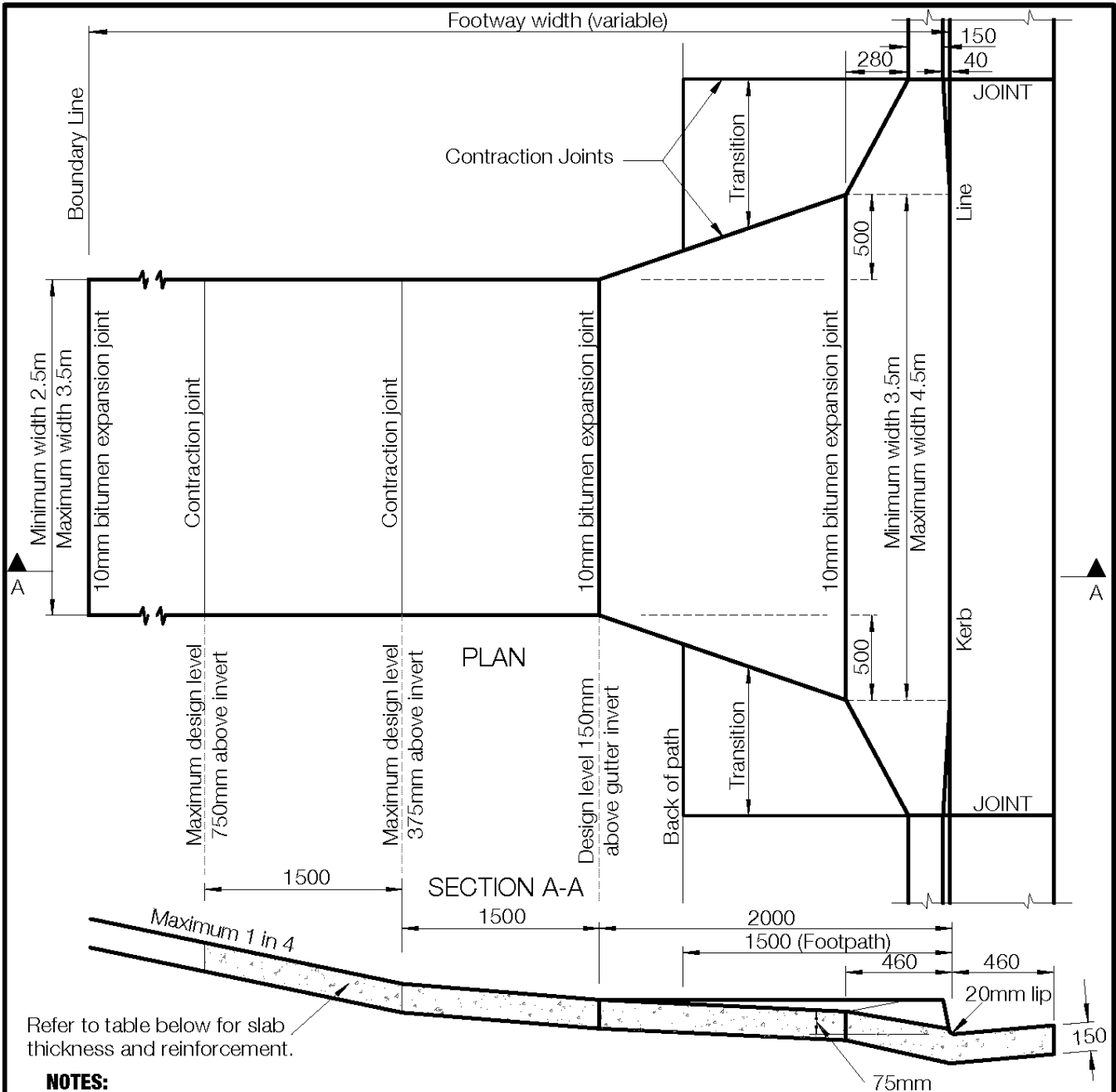


NOTES:

1. All edges to be shaped with an edging tool. (25mm radius)
2. Compressive strength of concrete to be greater than 20 MPa at 28 days.
3. The road base course is to extend beneath the kerb and gutter.
4. Mastic joints to be placed not more than 6m or less than 4m apart.
5. All reinforcement is to have a minimum of 50mm cover.
6. Laybacks can be constructed in plain concrete only.
7. All areas adjoining the layback must be made safe and flush to edges on completion including area of any proposed AC.

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Rural Layback



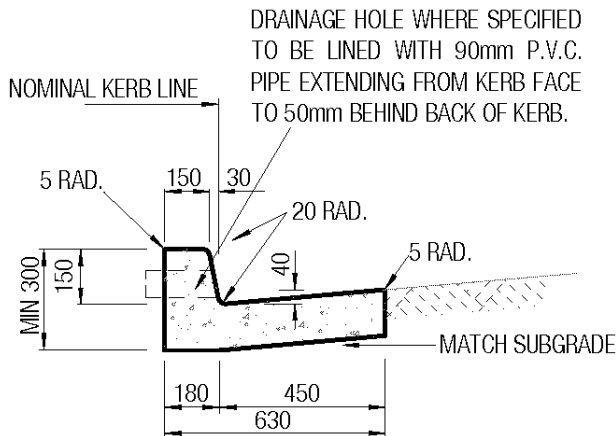
NOTES:

1. All edges to be shaped with a 50mm edging tool. (10mm radius)
2. Compressive strength of concrete to be greater than 20 MPa at 28 days.
3. The road base course is to extend beneath the kerb and gutter.
4. Mastic joints to be placed not more than 6m or less than 4m apart.
5. All reinforcement is to have a minimum of 50mm cover.
6. Laybacks and kerb side footpaths to be constructed in plain concrete only.
7. Adjacent ground for all works to be within 25mm of any finished level. 65mm kerb may be required for steep adjacent grades to protect prams and wheelchairs.
8. Nature strip is to be adjusted to new crossing. No grade to be greater than 1 in 8.
9. Footway transitions to be constructed only where there is an existing footpath.
10. Levels shown suit a bitumen crossfall of 3% on a flat road only.

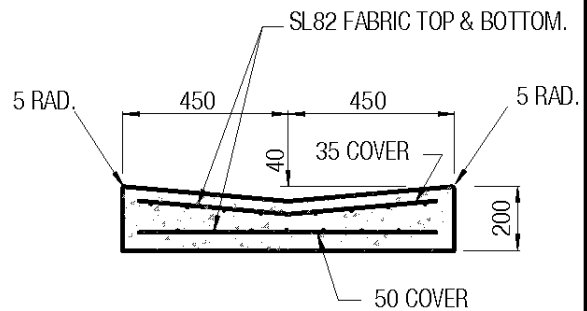
CROSSING TYPE	SLAB THICKNESS & REINFORCEMENT	LAYBACK THICKNESS & REINFORCEMENT
RESIDENTIAL	125mm, SL62	150mm
RESIDENTIAL H.D.	150mm, SL82	150mm, SL82
COMMERCIAL	200mm, 2*SL82	200mm, 2*SL82

HORNSBY COUNCIL

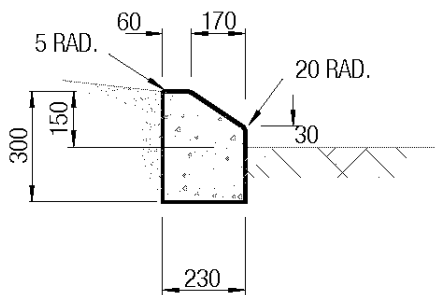
Kerb Side Path Crossing - Maximum Up



150mm INTEGRAL K & G

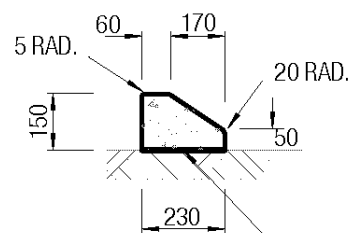


DISH CROSSING



MOUNTABLE KERB (A)

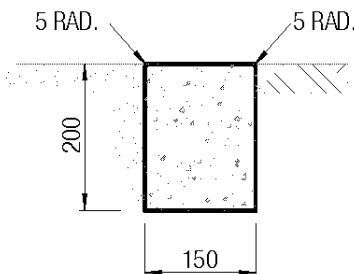
(Type used for medians and traffic islands).



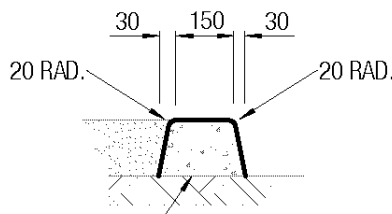
MOUNTABLE KERB (B)

(Type used on existing AC pavement surface for medians and traffic islands)

SURFACE TO BE TREATED WITH 'WET TO DRY' EPOXY CONCRETE ADHESIVE.



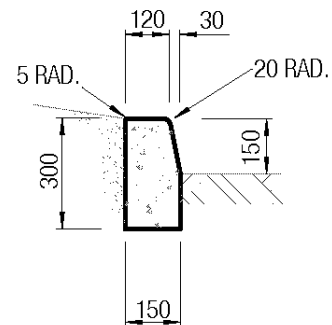
EDGE STRIP



SURFACE TO BE TREATED WITH 'WET TO DRY' EPOXY CONCRETE ADHESIVE.

BARRIER KERB 'SM'

(Type used on existing AC pavement surface for medians and traffic islands)



KERB ONLY

NOTES

1. Road sub-base to be extended beneath kerbs, gutters, laybacks, aprons and dish crossings.
2. Concrete to be a minimum of 20MPa compressive strength at 28 days for kerbing & guttering, laybacks & crossings, and edge strips.
3. Concrete to be a minimum of 25MPa compressive strength at 28 days for dish crossings.
4. Reinforcing fabric to Australian Standard 1304 - 1991 (Welded wire reinforcing fabric for concrete).
5. Roof water outlets are to be provided opposite the low side of each lot. The invert of the outlet shall be level with the invert of the gutter. Pipe to be 100mm x 75mm galvanised tube steel (5mm thick) for full width of nature strip.
6. Expansion joints of approved bituminous filler 10mm thick at maximum spacings of 6m intervals shall be provided.
7. Contraction joints shall be provided at 3m intervals.

HORNSBY COUNCIL

Kerbing and Guttering - Standard Types

PART 3. PROCEDURES & APPLICATIONS

3.1. Authorised Contractors

Vehicular crossings in Hornsby Shire may only be constructed by Council or a Council Authorised Contractor. For details on how to become an authorised contractor see Section 3.9 below.

3.2. Quotes

Council provides a service to construct crossings. A quote can be obtained by calling Council on 9847 6666. Quotes are valid for three (3) months.

3.3. Inspections

Council carries out several inspections for each vehicular crossing. See the flowchart in Section 3.6 below.

For all vehicular crossings, the following inspections are required:

- Level inspection
- Formwork inspection
- Concrete base slab inspection (for brick paved crossings only)
- Final inspection.

Formwork inspections require forty-eight (48) and will be carried out between 7.30am-11.00 am AS DETERMINED BY THE ENGINEER. To book please phone Council's Customer Service Team on 9847 6666.

For each inspection, the following must be completed and in accordance with this specification and any instruction (written or verbal) by the Crossing Engineer:-

3.3.1. Level inspection

For each vehicle crossing constructed an application to Council is required. Applications are submitted by the Authorised Contractor on owner(s) behalf. The Authorised Contractor may not commence work on any crossing (not even excavation) until they have received a letter from Council giving them the construction details and the levels for the crossing. Please allow 5 working days to process applications.

3.3.2. Formwork inspection

It is the responsibility of the Authorised Contractor to ensure that any service covers in the vicinity of the crossing are adjusted to suit the above requirements. No crossing will be given final approval until all these matters have been satisfactorily completed. The minimum requirements for a formwork approval are:

- The crossing excavated to the correct depth
- Subgrade suitable, level and compacted
- Formwork securely held in place at the specified level (nailed to stakes)
- Steel reinforcement in place (bar chairs on site)
- Expansion joint material in place (full depth & visible)
- Concrete surfaces against which fresh concrete is to be poured are clean
- Sediment & erosion and Safety control measures in place
- Concrete must be poured within 5 days from the commencement of excavation.

3.3.3. Concrete base slab inspection (for brick paved crossings only)

Will *automatically* be inspected 2 days after formwork inspection, unless requested.

3.3.4. Final inspection

The final inspection will automatically be carried out approximately 14 days after the approval of the formwork, or 30 days after the approval of the base slab in the case of brick paved crossings, unless requested earlier. The minimum requirements for a final approval are:

- Shape, level and surface finish to Council's requirements.
- Backfilled each side flush with the surface of the crossing.
- Soil placed each side of the crossing neatly trimmed to a grade no steeper than 1 in 8 unless the grade of the street makes this impractical, in which case it is to be trimmed to as near to this grade as is practical.
- All disturbed areas turfed.

If a crossing is not to Council's requirements a reinspection will be required and a fee may be charged. The crossing will be reinspected after a further 14 days whether the reinspection fee has been paid or not. The crossing will be automatically reinspected every 14 days, and an additional fee applied, until it meets Council's requirements. The crossing will not be approved until all outstanding fees are paid.

3.4. Approvals

Approval for the construction of a crossing is only given to an authorised contractor.

3.5. Fees

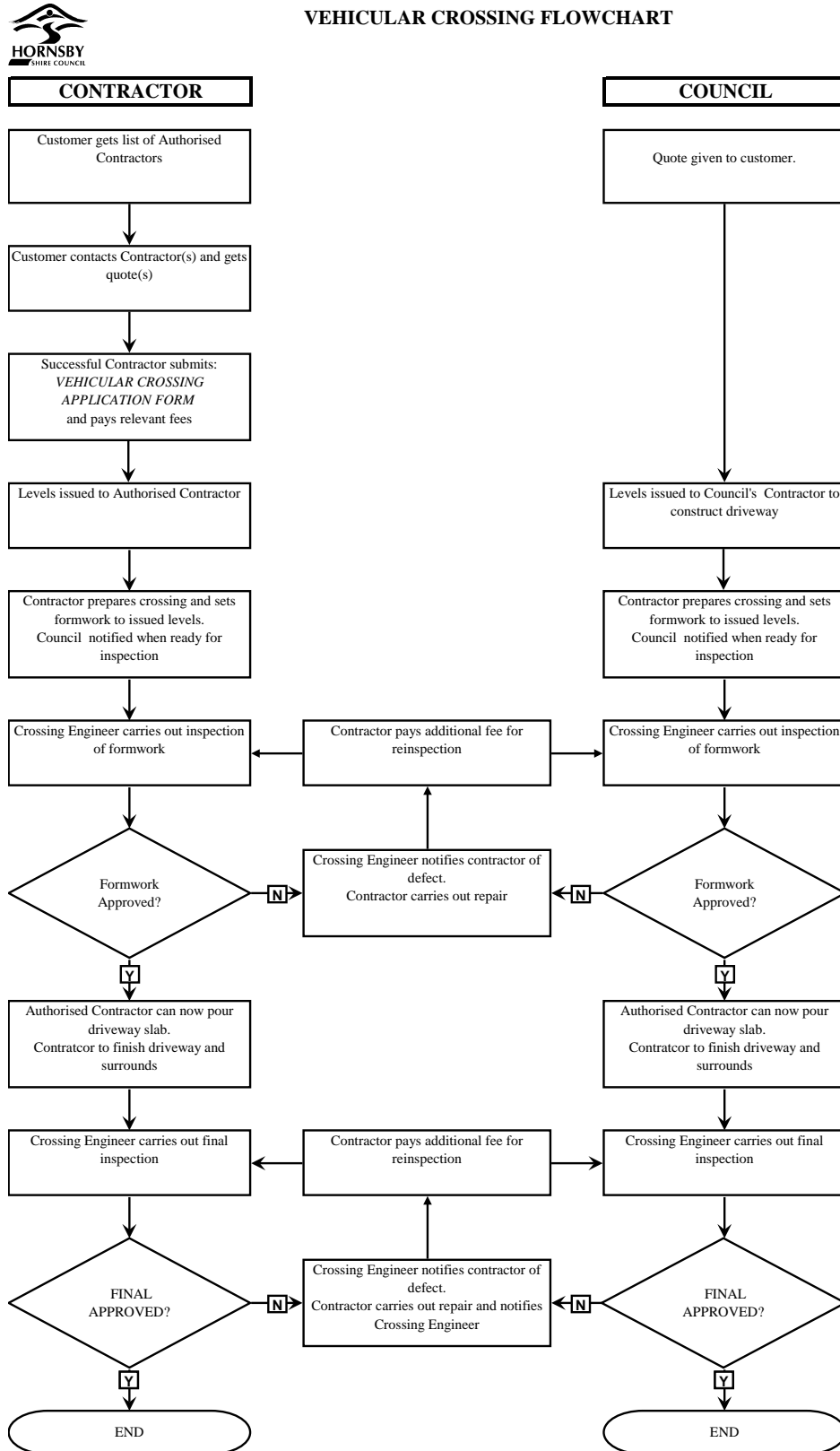
An administration fee, as set down in Council's Fees and Charges shall also be paid. This fee covers the processing of the driveway application and all site inspections. If more than one driveway is to be constructed, the same fee must be paid for any additional driveway to be processed.

If all of the above requirements are not satisfied, the application may be rejected and a further fee, as set down in Council's Fees and Charges will be required before reconsideration.

Council's fees and charges are revised in accordance with Section 608 of the Local Government Act any may change each July.

For current fees, please refer to Council's website at <http://www.hornsby.nsw.gov.au> and search *fees construction*.

3.6. Customer Flowchart



3.7. Contractor Obligations

Failure to comply with all the conditions of this specification and letters sent by Council relating to vehicular crossings may result in the approval to carry out construction of vehicular crossings in the Hornsby Shire Council area being revoked. In some circumstances, Council may carry out such work as is required to make an area safe to the public. The cost of such works shall be recovered by Council from the contractor. Throughout this specification where reference has been made to Australian Standards, Acts and Legislation and alike, Council refers to the current version/amendments of same.

3.8. Survey Marks

A number of Survey Marks throughout the Shire have been removed or damaged. Following is a copy of the Surveying and Spatial Information Act 2002 No 83, Part 5, Section 24 – Removal etc of survey marks (as per current version for 9 July 2010):

24 Removal etc of survey marks

- (1) *A person must not remove, damage, destroy, displace, obliterate or deface any survey mark unless authorised to do so by the Surveyor-General.*

Maximum penalty: 25 penalty units.

- (2) *A court that finds a person guilty of an offence under this section may, in addition to any penalty it imposes, make either or both of the following orders:*

(a) it may order the person to pay compensation, totalling not more than \$10,000, to the Surveyor-General towards the cost of reinstating the survey mark,

(b) it may order the person to pay compensation, totalling not more than \$10,000, to any other person towards any loss or damage suffered by that person as a consequence of the offence.

- (3) *An order for compensation referred to in subsection (2) is enforceable by the person to whom the compensation is ordered to be paid as if it were a judgment of the Local Court exercising jurisdiction under the Civil Procedure Act 2005.'*

Please report any disturbances or removal immediately to Council on 9847 6666 or to:

Survey Mark status helpdesk
Survey Information
2nd Floor
Land and Property Information
1 Prince Albert Road
Queens Square
Sydney NSW 2000

T: 8258 7516 (8.30am and 5.00 pm)

F: 8258 7555

E: scims@lpi.nsw.gov.au

For further information please refer to

[spatialservices.finance.nsw.gov.au/ data/assets/pdf_file/0020/208280/Protecting_survey_marks.pdf](https://spatialservices.finance.nsw.gov.au/data/assets/pdf_file/0020/208280/Protecting_survey_marks.pdf)

3.9. Cancellation

Cancellation of a crossing application can only be made by an authorised contractor. Outstanding fees will not be refunded.

3.10. Application to become Authorised Contractor

Vehicular crossings in Hornsby Shire may only be constructed by contractors who have been authorised by Hornsby Shire Council. Contractors who wish to become authorised will need to complete an '[Application To Become an Authorised Contractor](#)' form and allow 10 days for processing. You can go to Council's website and download the latest form or telephone Council's Customer Service Team on 9847 6666 to have the form sent to you.



HORNSBY SHIRE COUNCIL VEHICULAR CROSSING SPECIFICATION

All authorised contractors must have:

- Public Liability Insurance - The insurance cover shall be for a sum not less than \$20,000,000 for a period of six (6) months, and nominating on the policy Hornsby Shire Council as indemnified against public risk claims, arising during or as a result of the construction of a crossing. It is the responsibility of the Authorised Contractor to ensure Council has the current copy of 'Certificate of Currency' on record.
- A current 'OHS Construction Induction Training Certificate' (White Card).
- A current licence issued by the Department of Fair Trading for formwork and concreting

Authorised Contractors may not sub-contract any part of the construction of a crossing to others, other than the laying of paving bricks over a concrete base slab constructed by the Authorised Contractor. In this case the Authorised Contractor must ensure that the paving contractor has all the insurances and knowledge regarding traffic control, sediment and erosion control and safe work methods that Council requires Authorised Contractors to have.

The Authorised Contractor is responsible for every aspect of the paving contractor's work, including:

- safety during and after construction (until the crossing is approved at a final inspection)
- the standard of the finished work and
- compliance with all of Council's requirements.

The WorkCover Authority of NSW has a lot of helpful information on Safe Work Method Statements (SWMS). Their web address is <http://www.workcover.nsw.gov.au>.

Under Work Health and Safety (WHS) select 'Your Industry', 'Construction'. All workers on site must carry a current "OHS Construction Induction Training Certificate" (White Card).

3.11. Application Forms

To ensure you have the latest copy, please go to Council's website and download the latest forms.

1. [Application To Construct Vehicular Crossing From Roadway To Property](#)
2. [Application For Vehicular Crossing Levels For DA Lodgement](#)

PART 4. FAQ'S

The following is a quick guide to some frequently asked questions (FAQ's)

Question	Answer
<p>1. Who is responsible for construction cost of a vehicular crossing?</p>	<p>The property owner is responsible for all construction cost whether requested by owner(s) or is determined necessary by Council. Please refer to the NSW Roads Act 1993 – Sect 218 and 219.</p>
<p>2. Will Council construct a vehicular crossing on property owner's behalf?</p>	<p>Yes, Council will construct a vehicular crossing, in concrete finish only, to standard design. Please refer to <i>Section 2.14 of this 'Specifications' for further information</i>. Payment is required prior to construction. Council allows time payment to a schedule approved by the Chief Financial Officer. To obtain a quote please contact Council's Engineering Assistant, Design and Construction Branch, Infrastructure and Recreation Division on 9847 6928.</p>
<p>3. Can anyone construct a vehicular crossing on property owner's behalf?</p>	<p>No. All works must be supervised by Council and should be carried out by one of Council's authorised contractor or Council. To view current list of authorised contractors go to Council's website www.hornsby.nsw.gov.au 'My Property', 'Building and Development Application', 'Vehicular Crossings', "View list of Authorised Contractors".</p>
<p>4. My vehicular crossing is breaking up. Do I need Council's approval to re-construct the broken section?</p>	<p>Yes. All works must be supervised by Council and should be carried out by one of Council's authorised contractor or Council. If damage has been caused by a nature strip tree please write to Council's Asset Maintenance Engineer, Asset Management & Maintenance Branch, Infrastructure and Recreation Division. If damage was caused by a public utility please refer to FAQ No. 31.</p>
<p>5. Are vehicular "tracks" permitted?</p>	<p>No they create trip hazards.</p>
<p>6. How do I become an approved authorised contractor?</p>	<p>Refer to <i>Sections 2.6, 3.8 and 3.10 of this Specification and complete an Application form - Authorisation to construct vehicular crossing - 216kb</i>. Please allow 10 working days for processing.</p>
<p>7. I am a qualified concreter and have been doing concreting for years Why must I become an approved Authorised with Hornsby Shire Council, no other Council has asked for these requirements?</p>	<p>Under the WHS Act 2011, Council, as the land owner, is required to ensure the 'subcontractor' (Authorised Contractor - AC) provides a written 'Safe Work Method Statement' before commencing any "high risk construction work", which is any hazardous construction work that has the potential to harm the health and safety of people or to damage plant and equipment". Refer to the</p>

	<p>WorkCover NSW website for further information or call 131 050.</p> <p>It is also necessary for the AC to know how to prepare or select a suitable ‘Traffic Control Plan’, due to alteration to the flow of pedestrian and vehicular traffic. Refer to the Roads and Maritime Services NSW (RMS) website for further information or call 1300 828 782.</p> <p>Under the NSW Protection of the Environment Operations Act 1997 (POEO) it is illegal to pollute or cause or permit pollution of waters. Under the Act, ‘water pollution’ includes introducing litter, wash water, soil, debris, detergent, paint, cement slurry, building materials etc. into waters or placing such material where it is likely to be washed or blown into waters or the stormwater system or percolate into groundwater. The AC must also know how to prepare a ‘Sediment and Erosion Control Plan’. Refer to the Office of Environment and Heritage NSW website for further information or call 131 555.</p>
<p>8. Can I relocate my existing vehicular crossing?</p>	<p>Please refer to <i>Sections 2.2; 2.4.2 and 2.4.9 of this ‘Specification’</i>. Please write to ‘Council’s Engineering Assistant, Design and Construction Branch, Infrastructure and Recreation Division’ with your request. Subject to approval, the existing crossing will have to be removed and new kerb and gutter reinstated, in conjunction with the new crossing construction. All costs are at the property owner’s expenses.</p>
<p>9. My property has a wide frontage, how many vehicular crossings per property does Council allow?</p>	<p>Residential properties are permitted a maximum of one (1) vehicle crossing for vehicle access. Commercial/industrial and multi unit properties are subject to approval. Please write to ‘Council’s Engineering Assistant, Infrastructure and Recreation Division’ with any additional requests.</p>
<p>10. What is the maximum gradient for a crossing?</p>	<p>1 in 4 (25%)</p>
<p>11. Should I get my vehicular crossing levels prior to any internal driveway construction?</p>	<p>Yes. The footpath level will determine your internal property level and garage floor level, thus allowing for a smooth transition when entering and exiting your property and avoid scrapping.</p>
<p>12. Do I need Council’s approval to concrete my internal driveway?</p>	<p>Contact Council’s Planning and Building Branch on 9847 6666 for all internal driveway requirements, especially where retaining walls are required.</p>
<p>13. My car scraps when entering and / or exiting my driveway entrance and I have an existing concrete vehicular entrance?</p>	<p>How old is your driveway? Have you changed your vehicle recently? Your vehicular crossing levels may need to be adjusted to suit. All costs are at the</p>

<p>What do I do?</p>	<p>property owner's expense. All works must be supervised by Council and carried out by an approved Authorised Contractor. Please write to 'Council's Asset Maintenance Engineer, Infrastructure and Recreation Division'.</p>
<p>14. My street was resurfaced recently and now my car scrapes when entering and/or exiting my vehicular crossing?</p>	<p>Please write to Council's Asset Maintenance Engineer Infrastructure and Recreation Division.</p>
<p>15. What are Council's minimum and maximum widths at property boundary and kerb?</p>	<p>A minimum of 2.5 metres and a maximum of 3.5 metres wide at the property boundary for single and a minimum 3.5 metres to a maximum 4.5 metres wide at the property boundary for double.</p>
<p>16. I have a double garage; can I widen my vehicular crossing to suit?</p>	<p>Please refer to Council's <i>Sections 2.2; 2.4.2 and 2.4.9 of this 'Specification'</i>. All requests must be in writing and addressed to 'Council's Engineering Assistant, Design and Construction Branch, Infrastructure and Recreation Division'.</p>
<p>17. Are 'wedges' in gutter permitted?</p>	<p>No, this impedes the flow of stormwater and if materials used have not been secured they have the potential to be washed into stormwater drains which may result blocking of same and flooding of properties / road.</p>
<p>18. I live on a private road; do I need Council's approval to construct a vehicular crossing?</p>	<p>No but Council's Vehicular Crossing specifications should be adhered to.</p>
<p>19. My vehicular entrance enters and exits from a State Road. Do I need to contact NSW Roads and Maritime Services (RMS) for additional consent?</p>	<p>Yes. Call RMS (land use development staff) on 131 782 for further information. All works must be supervised by Council's Engineering Assistant, Infrastructure and Recreation Division and carried out by an approved Authorised Contractor.</p>
<p>20. What is an illegal crossing?</p>	<p>An illegal crossing is one that hasn't had prior Council approval or is still in it natural form i.e. earth nature strip. Where action is effected in such a way as to cause gutter blockages and / or public danger (trip hazard), notice will be served on the owner to remove, reinstate or construct an approved crossing. If a reply is not received within 28 days, Council will take action to carry out minimum requirements to rectify problem and the owner debited with costs. Please refer to the NSW Roads Act 1993 – Sect 218 and 219. Council strongly recommends that the property owner constructs a proper concrete vehicular crossing.</p>
<p>21. My contractor is insisting payment, how do I know if Council has carried out a 'Final Approval'?</p>	<p>Request to see the '<i>Final Approval Slip</i>' provided to your Contractor by Council.</p>

<p>22. When should I pay my Contractor?</p>	<p>Upon issue of <i>'Final Approval Slip'</i> by Council to your Contractor.</p>
<p>23. What do I do if I have a complaint about a contractor?</p>	<p>All complaints must be in writing to 'Council's Engineering Assistant, Infrastructure and Recreation Division'. All claims will be investigated and formerly replied to both compliant and contractor concerned.</p>
<p>24. What type of finishes and colour is acceptable?</p>	<p>Laybacks can only be constructed in plain concrete. For all other finishes and colour refer to <i>Sections 2.1; 2.4.1; 2.4.8; and 2.4.10 of this 'Specification'</i>.</p>
<p>25. When is a standard and heavy duty crossing required?</p>	<p><i>Standard is generally used for light traffic vehicles. Heavy duty is usually constructed for commercial and industrial purposes or where vehicles over 5 tonnes will be regularly using vehicular access. Please refer to Section 2.4.4. of this 'Specification'.</i></p>
<p>26. I live on a busy street and find it difficult to enter by driveway safely. Can I alter its shape?</p>	<p>This request is subject to approval. Please write to 'Council's Engineering Assistant, Design and Construction Branch, Infrastructure and Recreation Division'. Please refer to <i>Sections 2.2; 2.4 and 2.4.3' of this 'Specification'</i>.</p>
<p>27. My vehicular crossing is earth (natural form) and there is no Council drainage in my street. Every time it rains dirt and gravel is washed into my internal property from the street. How do I prevent this from reoccurring?</p>	<p>This request is subject to further investigation. Please write or email to 'Council's Asset Maintenance Engineer, Asset Management & Maintenance, Infrastructure and Recreation Division. Council may recommend property owner to construct a concrete crossing to prevent reoccurrence at owners' expense. Refer to FAQ Nos. 2 & 24. Council can give you a quote for these works or you may engage one of Council's approved Authorised Contractors (refer to FAQ No. 3).</p>
<p>28. Potholes/depressions are forming in the earth nature strip at the entrance of my vehicular access. Can Council fill in these potholes/depressions?</p>	<p>Yes, you can submit a request to Council's Customer Service Team on 9847 6666. Please refer FAQ No. 20. Council strongly recommends that the property owner construct a proper concrete vehicular crossing.</p>
<p>29. I'm living in a rental property with no concrete vehicular entrance, what can I do?</p>	<p>Initially all requests go to your agent. It is the owner's responsibility to have a concrete vehicular access to the property. Refer to FAQ No. 1</p>
<p>30. A public utility has dug up my driveway. How do I have this damage reinstated?</p>	<p>All requests should be in writing to 'Council's Restoration Supervisor, Asset Management & Maintenance, Infrastructure and Recreation Division'. Please refer to <i>Section 2.6. of this 'Specification'</i>.</p>
<p>31. The Council is doing construction work in my street and I have received a quotation</p>	<p>If you choose to accept Council's quotation, quote is only validated whilst construction crews are</p>

<p>for a vehicular crossing construction. What do I do?</p>	<p>currently working in your street. Payment prior to construction is required. Council allows time payment to a schedule approved by the Chief Financial Officer.</p>
<p>32. As part of my Development Application (DA) construction of footpaths, vehicular crossing and or kerb / gutter are required for Construction Certificate? What should I do?</p>	<p>Please contact Council's Planning Division on 9847 6666 for approval and inspections as these works require a Construction Certificate. The footpath level still must be obtained from Council's Engineering Assistant. Refer to FAQ No. 34. If as part of a DA only a vehicular crossing is required please refer to FAQ Nos. 1, 2 and 3.</p>
<p>33. I need the footpath level for my Development Application (DA). What should I do?</p>	<p>Please complete an Application Form - Vehicular Crossing levels for DA lodgement</p>
<p>34. Can I have a bituminous crossing instead of concrete?</p>	<p>A bituminous crossing is subject to approval and is only permitted in rural areas. Please write to Council's Engineering Assistant, Design and Construction Branch, Infrastructure and Recreation Division.</p>
<p>35. Can I get access to park my car inside my property on the lawn?</p>	<p>No. Access is only available for a garage or carport.</p>
<p>36. Water is entering my property via the driveway, how can I stop it?</p>	<p>If you paid your previous Contractor up front for Council's fees you will need to sort out a payment refund with your previous Contractor. You can then proceed to engage another approved Authorised Contractor to do the work or have Council give you a quote.</p>
<p>37. There is a tree very close to my proposed driveway. Can I still construct the driveway in that position</p>	<p>The owner must first obtain prior approval from Council's Tree Management Section prior to vehicular crossing construction. Please refer to <i>Section 2.4.9. of this 'Specification'</i>.</p>