



Vehicular Crossing **Specification**

HORNSBY SHIRE COUNCIL

**Prepared by the
Design and Construction Branch**

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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.

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

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.

1.3 Who can construct a vehicular crossing

All works must be supervised by Council to ensure that construction is to a reasonable standard and uniformity. Vehicle crossing can be constructed by either Council by obtaining a quote or one of the [Council's approved Authorised Contractor](#).

If you have a complaint about a contractor please submit all complaints in writing to '[Council's Engineering Assistant, Infrastructure and Recreation Division](#)'. All claims will be investigated and formerly replied to both the compliant and contractor concerned.

1.4 Quotes by Council

Council will only construct in a plain concrete finish only. Council allows for time payment schedule as approved by the Chief Financial Officer. Full payment is required prior to construction works commencing. To obtain a quote please go to Council's vehicular crossing web page and request online.

It is the owner's responsibility to have a concrete vehicular access to the property. Tenants with no concrete vehicular entrance should contact their agent. The property owner is responsible for all construction and associated costs whether requested by owner(s) or is determined necessary by Council. Please refer to the [NSW Roads Act 1993 – Sect 218 and 219](#).

1.5 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 (Naturestrip)	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.

1.6 Existing Crossings

1.6.1 Re-utilised

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.

1.6.2 Un-used

Any existing un-used crossing(s) and/or layback(s) must be removed and the kerb & gutter and footpath reinstated/restored at the owners expense to Council's satisfaction.

1.6.3 Maintenance

If your vehicular crossing has aged and is breaking up you will need Council's approval to re-construct. All works must be supervised by Council and should be carried out by one of [Council's Authorised Contractors](#) or you can obtain a quote from Council (refer to 1.3).

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 damaged by a public utility, all requests should be in writing to '[Council's Restoration Supervisor, Asset Management & Maintenance, Infrastructure and Recreation Division](#)'. Please note Council can only arrange reinstatement in plain concrete only after the responsible public utility has submitted a restoration order to Council. In the meantime should you experience any backfill subsidence prior to replacement please contact responsible Public Utility Authority.

1.6.4 Car Scrapes when entering / exiting concrete vehicular crossing

If you answered yes to any of the following questions please write to Council's [Asset Maintenance Engineer, Asset Management & Maintenance Branch, Infrastructure and Recreation Division](#):

- Has your street recently been resurfaced?
- Have you changed your vehicle?
- Do you have an illegal crossing?
- Was the concrete crossing construction approved and supervised by Council originally?
- Have street trees lifted the vehicular crossing?

1.6.5 Illegal Vehicular Crossing

An illegal vehicular crossing is one that hasn't had prior Council approval i.e:

- still in its natural earth form
- use of gutter wedges to mount gutter (i.e. no invert)*
- constructed with "vehicular "tracks"
- no formal application was submitted to Council therefore construction was never supervised by Council

** Wedges are not permitted as they impede the flow of stormwater and if not secured they have the potential to be washed into stormwater drains which may result in blocking drains and cause flooding of properties and/or road.*

Notice will be served on the owner to remove, reinstate or construct an approved crossing, where action is effected in such a way as to cause gutter blockages and / or public danger (trip hazard). 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.

Council strongly recommends that the property owner constructs a proper concrete vehicular crossing.

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. 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.

No part of a crossing may be constructed in front of a neighbouring property without the approval of Council's Crossing Engineer. Council does not accept the responsibility for the identification of property boundaries.

Crossings must be at least 1m clear of any post, pole, tree or stormwater pits unless specifically authorised by Council's crossings inspector due to exceptional circumstances.

Vehicle access shall be located so that minimum clear sight distances to traffic and pedestrians can be provided 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 physical features that may obstruct sight lines such as earth mounds and bus shelters.

Where there is no alternative driveway location, Council may grant approval for the removal or relocation of these structures, subject to approval from Council's Crossing Engineer and other sections of Council as required. All costs associated with such work shall be borne by the applicant.

If the proposed vehicular crossing/driveway is close to a tree the owner must first obtain prior [approval from Council's Tree Management Section](#) prior to vehicular crossing construction.

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



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Stormwater system may be required. All costs associated with engaging an Engineer shall be borne by the applicant. Stormwater outlets must not be located in the layback.

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 Driveway Details

2.3.1 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.

The surface of the vehicular crossing MUST NOT be coated with any epoxy type paint or any sealant.

Please note a bituminous crossing is subject to approval and only permitted in rural areas. Please submit request in writing to [Council's Engineering Assistant, Design and Construction Branch, Infrastructure and Recreation Division](#) at hsc@hornsby.nsw.gov.au

2.3.2 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.

2.3.3 Thickness

Concrete Residential is generally used for light traffic vehicles. Residential Heavy duty Concrete is usually constructed for commercial and industrial purposes or where vehicles over 5 tonnes will be regularly using vehicular access

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

2.3.4 Width

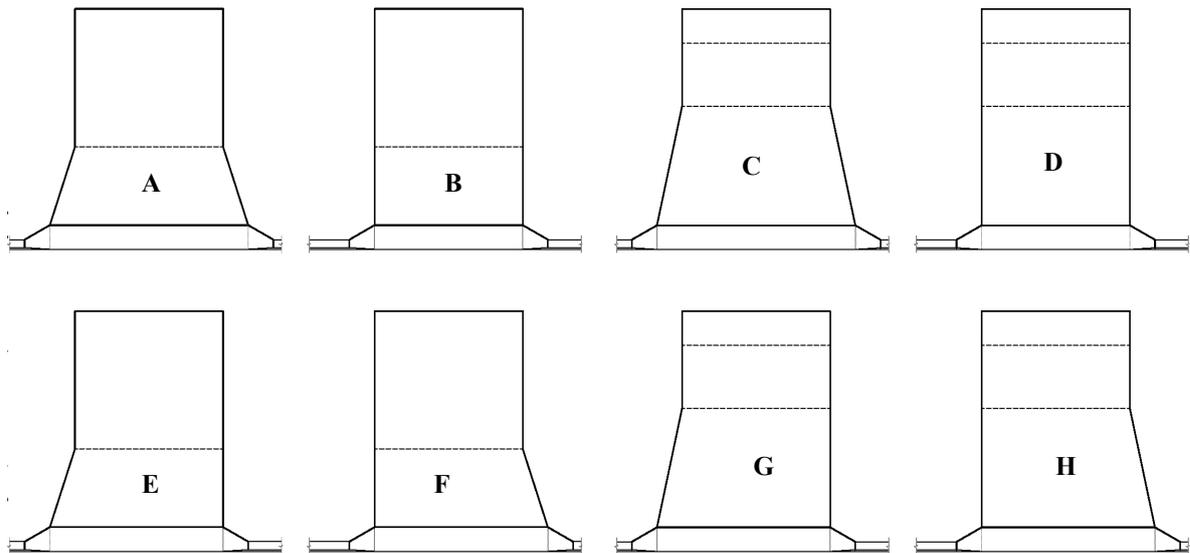
Crossing widths, excluding wings, are as follows:

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.

2.3.5 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 above sketches.

If you live on a busy street and find it difficult to enter your driveway safely and would like an alternative splay please submit a written request to [Council's Engineering Assistant, Design and Construction Branch, Infrastructure and Recreation Division](#)

2.3.6 Gradient

The maximum gradient for a crossing 1 in 4 (25%).

2.3.7 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.

2.3.8 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.

2.3.9 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.

Unless the gutter section is cracked it can be cut along the invert (advisably 50mm away from the invert) to construct layback. If the gutter section is also to be reconstructed minimum 300mm bitumen needs to be reconstructed to Council's Standard.

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

2.3.10 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 & S/NZS3661	50 BPN	-
Transverse Breaking Load	AS/NZS4456.5	5.0kN	-

Pavers must be laid on 25 mm sand bedding over a 100mm thick concrete (unreinforced) base slab. The crossing pavers must be laid within 30 days of the formwork base slab approval. 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.



3 PROCEDURES & APPLICATIONS

3.1 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.

3.1.1 Levels for DA Consent

For level at boundary please complete an [Application Form - Vehicular Crossing levels for DA lodgement](#).

3.1.2 Internal Driveway

For all internal driveway requirements, especially where retaining walls are required please contact Council's Planning and Building Branch on 9847 6666.

If you don't have an approved Vehicular Crossing you should obtain from Council your property boundary level to determine your internal property level / garage floor level to allow for a smooth transition when entering and exiting your property.

3.2 Procedures

If your vehicular entrance enters and exits from a State Road you will need to contact NSW Roads and Maritime Services (RMS) [Land Use Development Staff](#) on 131 782 for additional consent. All works must be supervised by Council's Engineering Assistant, Infrastructure and Recreation Division and carried out by an approved Council's Authorised Contractor.

If you live on a private road you do not need Council's approval to construct a vehicular crossing, however Council's Vehicular Crossing specifications should be adhered to.

3.3 Application Forms

From 01 July 2018, applications are lodged online by visiting Council's web page, www.hornsby.nsw.gov.au, property, developing my property, vehicular crossings.

3.4 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 3.10 below.

3.5 Quotes

Council provides a service to construct crossings. A quote can be obtained by visiting www.hornsby.nsw.gov.au, Property, Developing my property, Vehicular Crossings, Quote

Quotes are valid for three (3) months.

3.6 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:-

3.6.1 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.

3.6.2 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.

3.6.3 Concrete base slab inspection (for brick paved crossings only)

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

3.6.4 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.

It is the owner's responsibility to maintain the area during the settlement/curing period.

If your contractor is insisting payment please ensure Council has carried out a 'Final inspection by requesting to see Council's *'Final Approval Slip'* issued by Council to the Contractor (see 3.16).

3.7 Approval

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

3.8 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

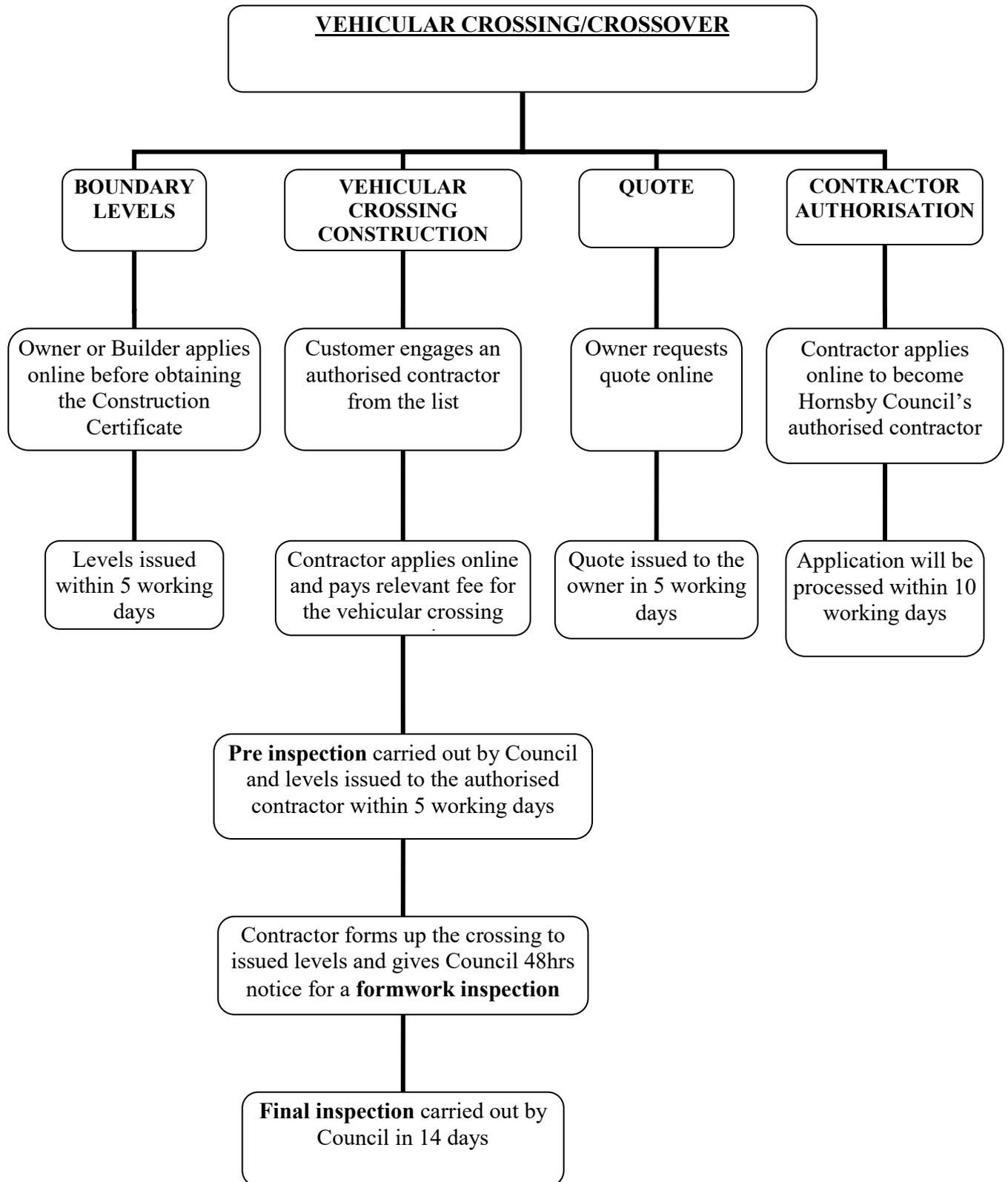


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Fees and Charges will be required before reconsideration. Council's fees and charges are revised in accordance with Section 608 of the Local Government Act any may change each July.

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

3.9 Customer Flowchart



3.9.1 Cancellation

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

3.10 Why do I need to become an Authorised Council Contractor?

Under the [WHS Act 2011](#), Council, as the land owner, is required to ensure the 'subcontractor' i.e. Concrete Contractors provide a written 'Safe Work Method Statement' before commencing any 'high risk construction work' i.e. 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 [SafeWork NSW](#) website for further information or call 13 10 50.

Vehicular crossings in Hornsby Shire may only be constructed by concrete contractors who have been authorised by Hornsby Shire Council. Contractors who wish to become authorised will need to to www.hornsby.nsw.gov.au, property, developing my property, vehicular crossings to apply to become an authorised contractor and allow 10 days for processing.

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.

Traffic Control Plans - please provide diagrammatic example as per Australian Standards (AS 1742.3-2009) for the following works occupying the full width of a footway:

- i. short term
- ii. long term
- iii. Refer to "[Traffic Control at Work Sites](http://www.rms.nsw.gov.au/business-industry/partners-suppliers/documents/technical-manuals/traffic-control-at-worksites-manual.pdf)" [<http://www.rms.nsw.gov.au/business-industry/partners-suppliers/documents/technical-manuals/traffic-control-at-worksites-manual.pdf>] (RMS publication) for appropriate plan requirements.
- iv. Click here for an overview of [Traffic Control Training](#).
- v. Click here for a list of [Approved Traffic Control Training Provider](#).
- vi. Contractors must also nominate a minimum of one staff member who has completed the 'Implement Traffic Control Plans' training course. A copy of their accreditation needs to be submitted with the Traffic Control Plans.

Applicant's current 'OHS Construction Induction Training Certificate' (White Card)

Please note all workers on-site must have 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.



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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 [SafeWork NSW](#) has a lot of helpful information on Safe Work Method Statements (SWMS).

3.11 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.

3.12 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.

3.13 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

3.14 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.

3.15 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.

3.16 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.

3.17 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.



3.18 Traffic Control

Authorised Contractors need to know how to prepare a suitable Traffic Control Plan.

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.

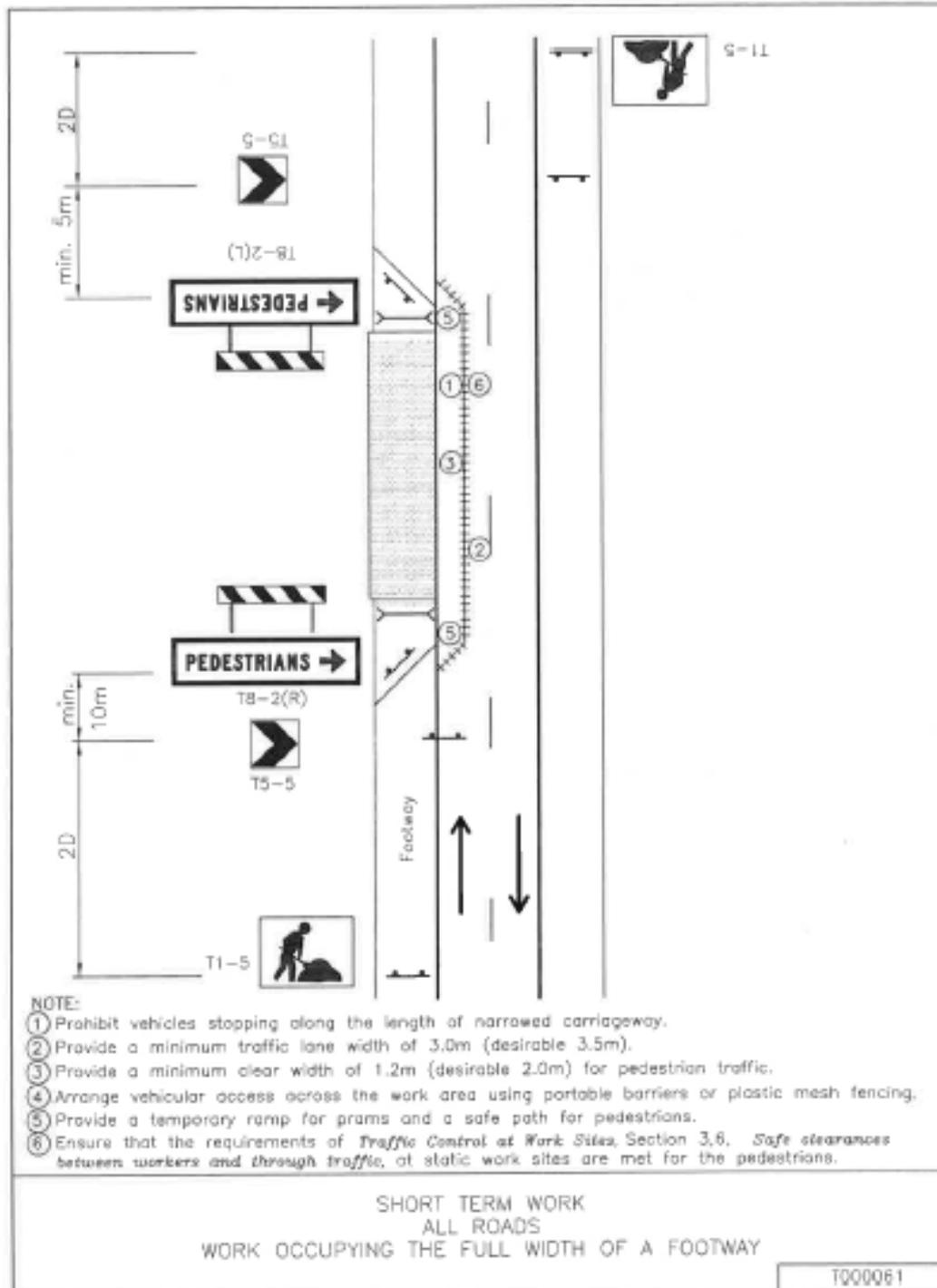
Copies of the all traffic control plans can be found in the Roads and Maritime Services NSW (RMS) publication "Traffic Control at Work Sites". This publication can be found on the RMS website http://www.rms.nsw.gov.au/doingbusinesswithus/downloads/technicalmanuals/tcwsv4_dl1.html or call 1300 828 782.

The following two RMS Traffic Control Plans Nos 61 and 109 are shown as minimum treatments required when constructing a vehicular crossing.

3.18.1 TcP 61 - Short Term Work - All Roads

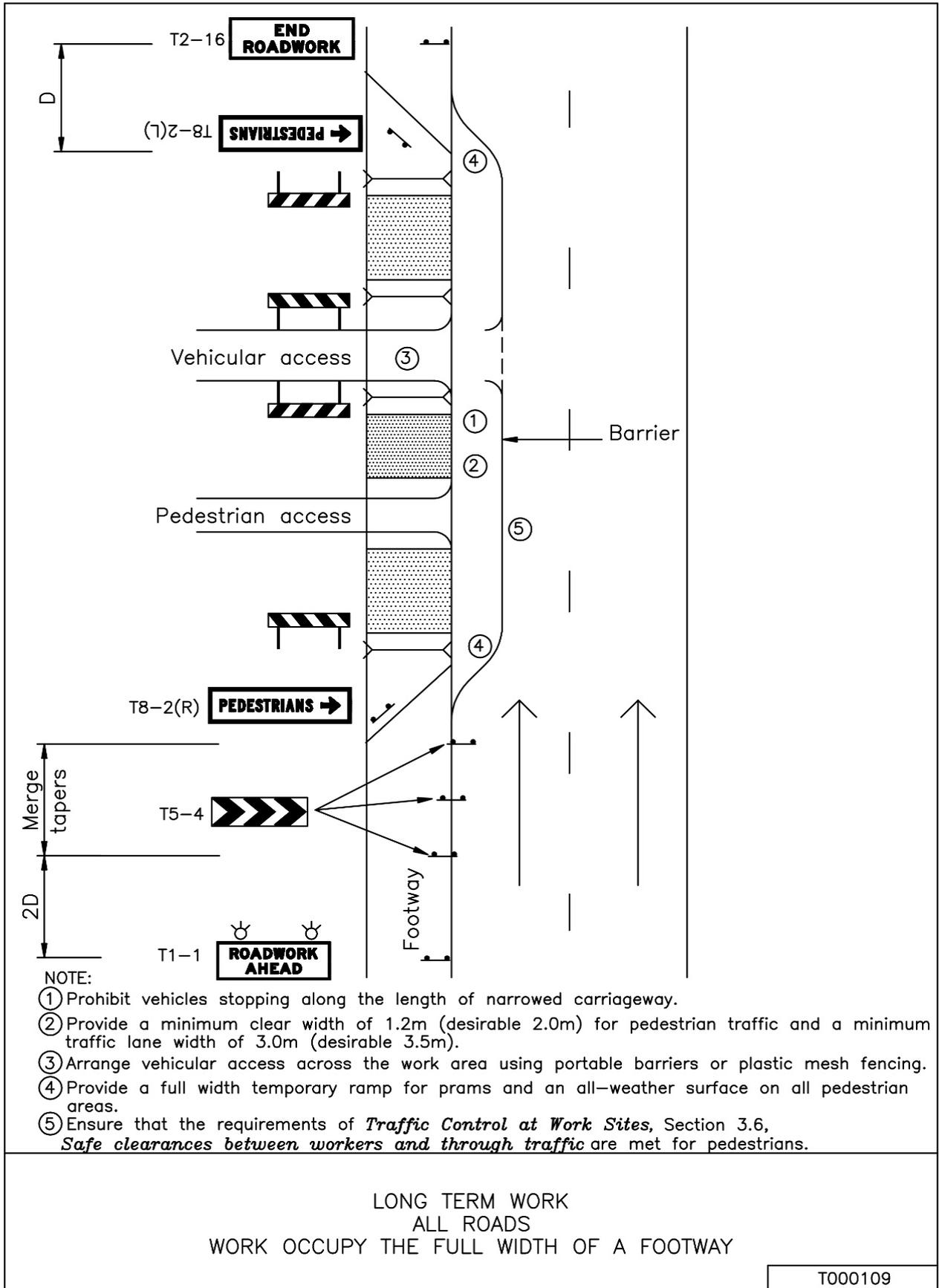


Traffic Control at Work Sites



TCP 61

3.18.2 TcP 109 - Long Term Work - All Roads



3.19 Sediment and Erosion Control

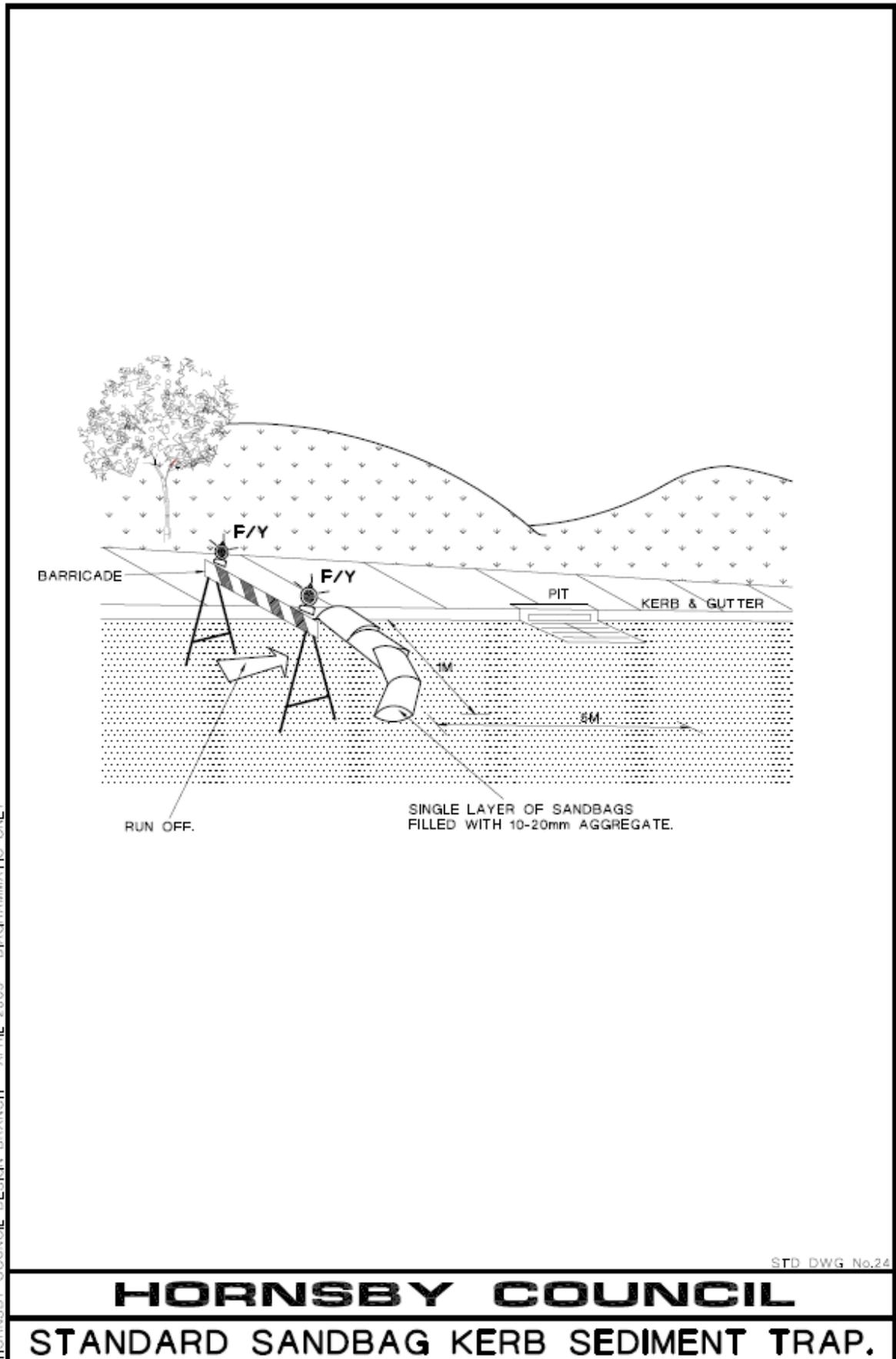
Under the NSW Protection of the Environment Operations Act 1997 (POEO) it is illegal to pollute or cause or permit pollution of waters. Under the Act, 'water pollution' includes introducing litter, wash water, soil, debris, detergent, paint, cement slurry, building materials etc. into waters or placing such material where it is likely to be washed or blown into waters or the stormwater system or percolate into groundwater. The Authorised Contractors must also know how to prepare a 'Sediment and Erosion Control Plan'. For further information please refer to the [Office of Environment and Heritage NSW](#) website or call 131 555.

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 to place sediment sausages or gravel filled sandbags in the downstream gutter or table drain of all works and leave 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 "Standard Sandbag Kerb Sediment Trap" drawing below.

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

3.19.1 Standard Sandbag Kerb Sediment Trap - Council Drawing



HORNSBY COUNCIL DESIGN BRANCH APRIL 2005 DIAGRAMMATIC ONLY



3.20 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

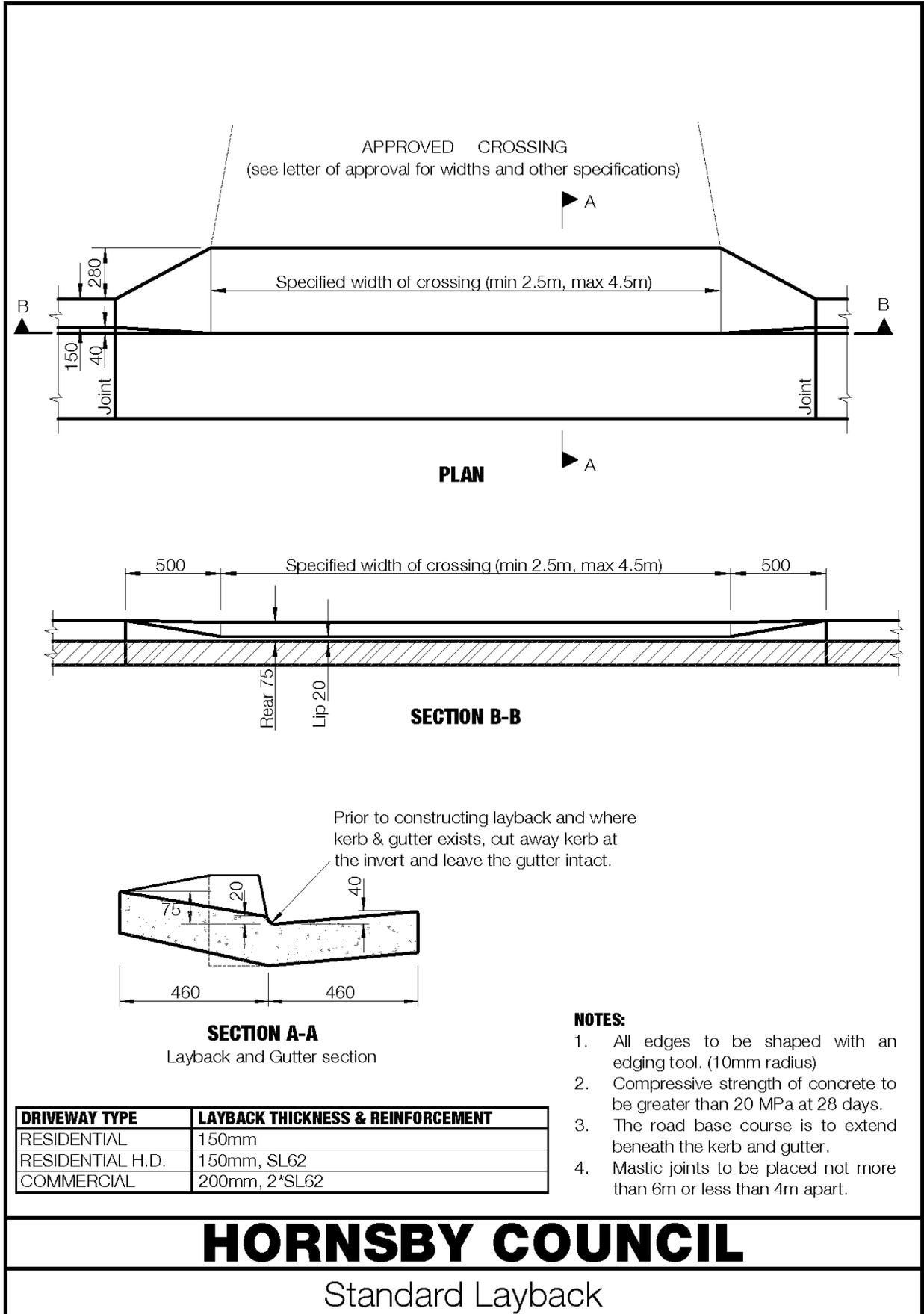
T: 8258 7516 (8.30am and 5.00 pm)
F: 8258 7555
E: scims@lpi.nsw.gov.au

For further information please refer to

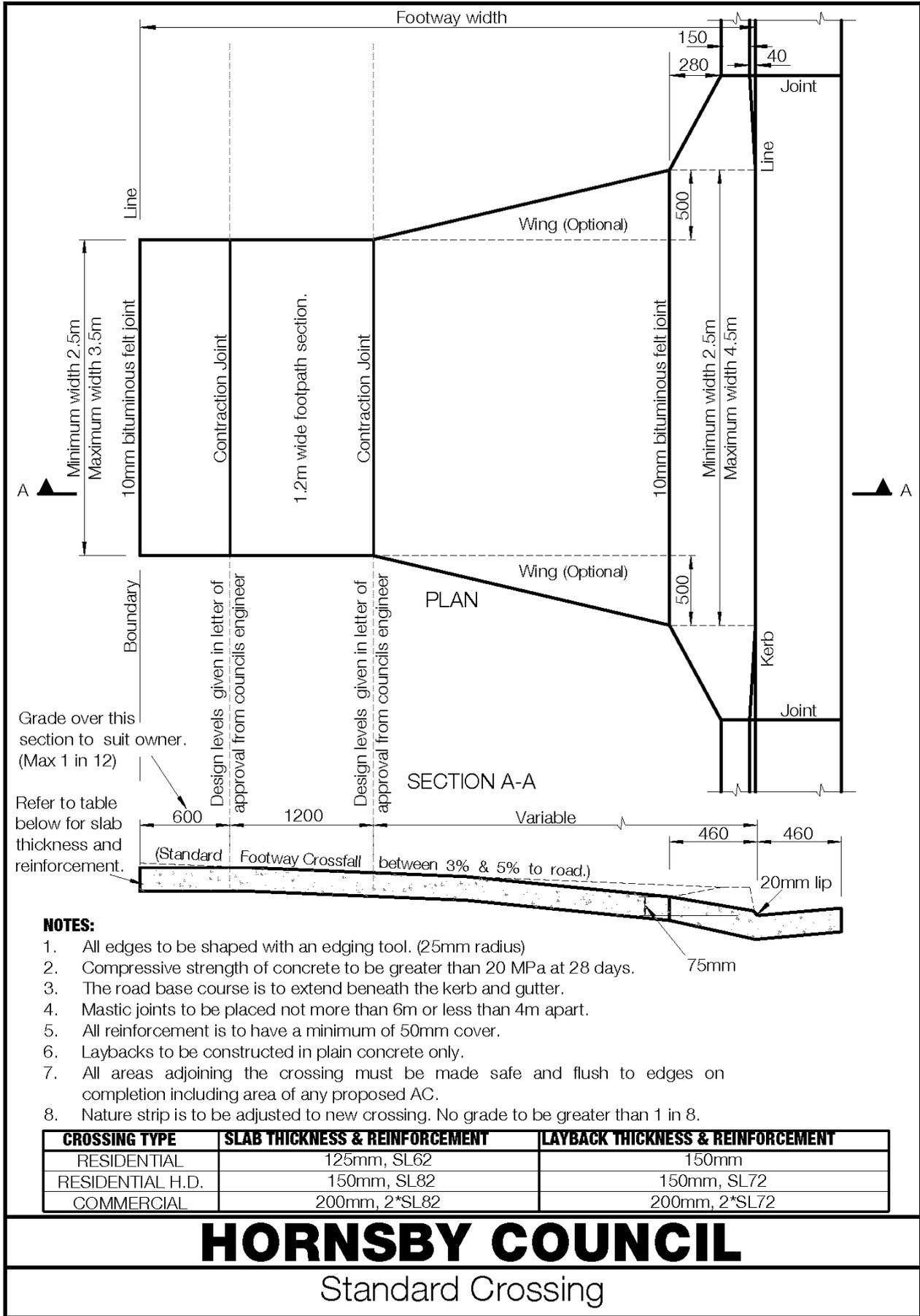
spatialservices.finance.nsw.gov.au/_data/assets/pdf_file/0020/208280/Protecting_survey_marks.pdf

4 STANDARD DRAWINGS

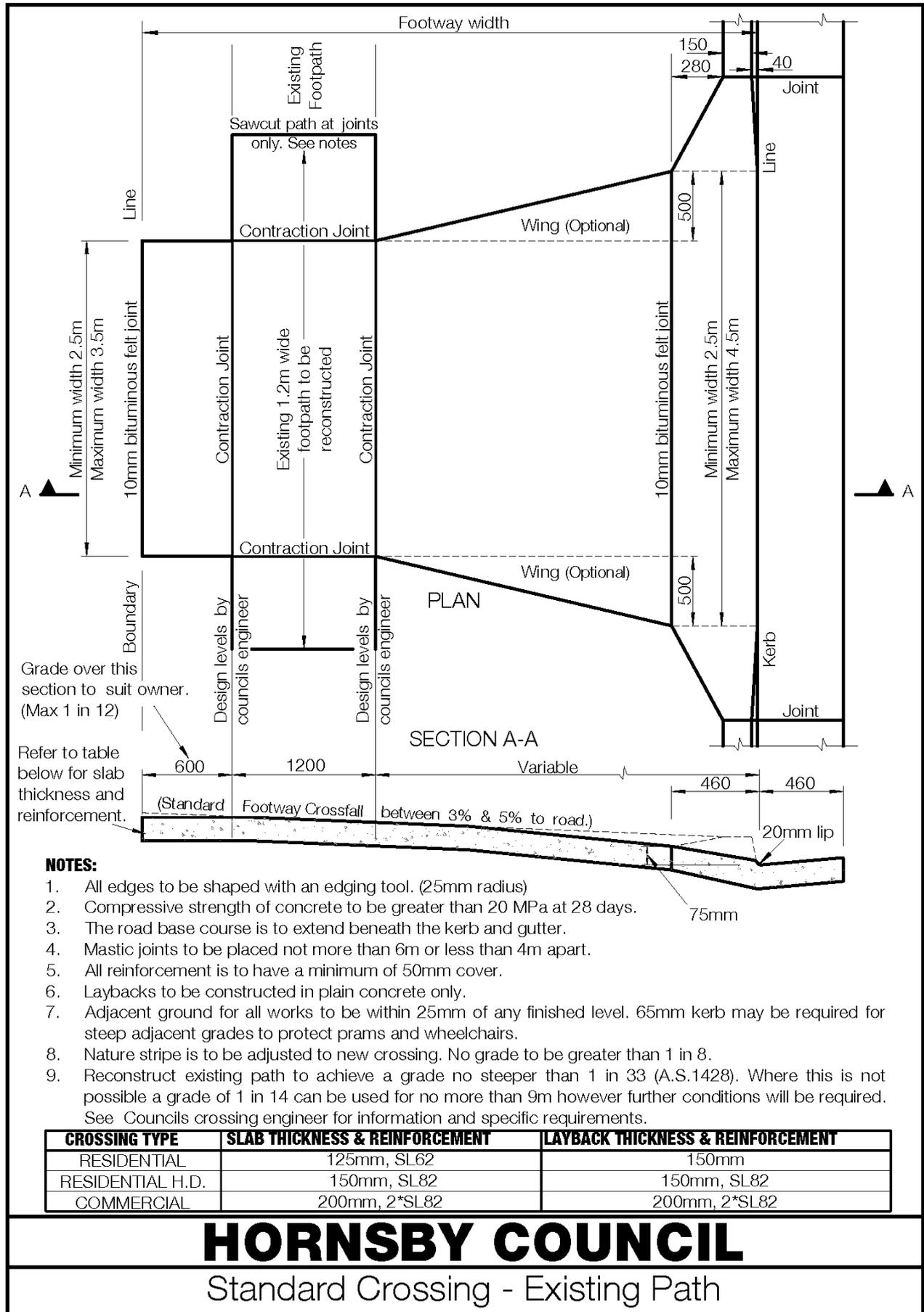
4.1 Standard Layback



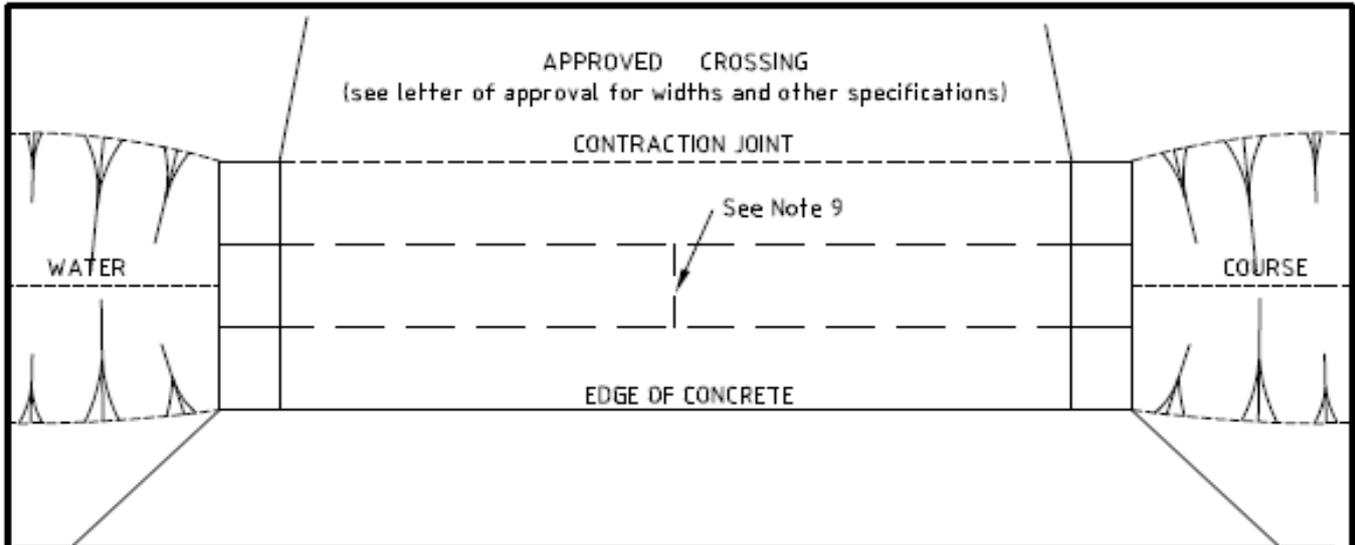
4.2 Standard Crossing



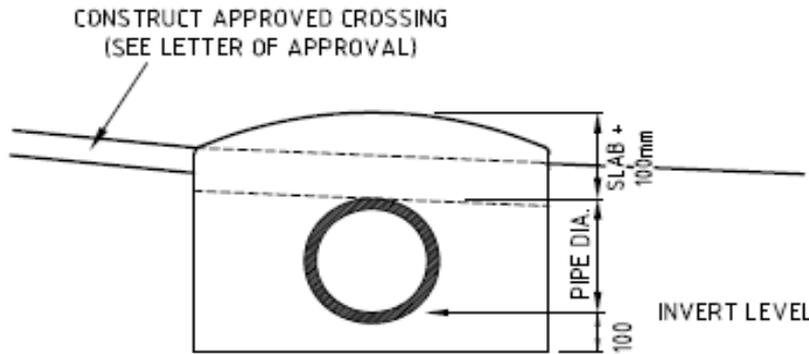
4.3 Standard Crossing-Existing Path



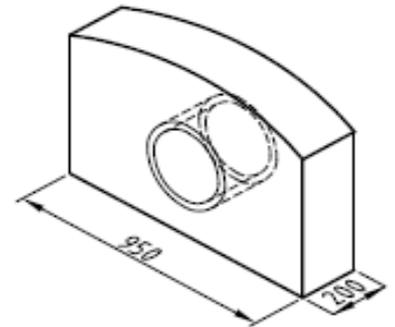
4.4 Standard Pipe Crossing



EXISTING EDGE OF BITUMEN
PLAN



END ELEVATION



ISOMETRIC VIEW

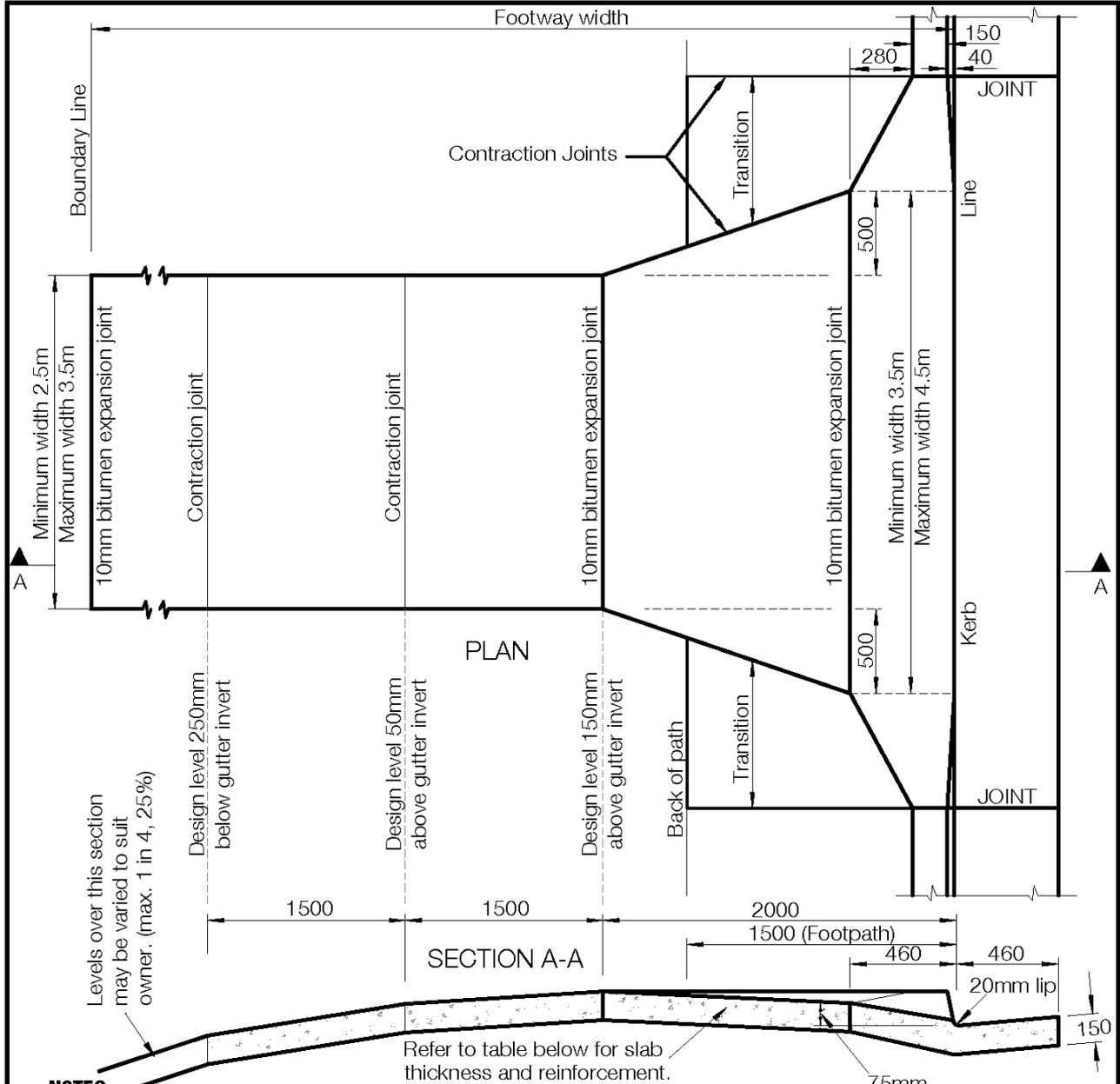
NOTES:

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

HORNSBY COUNCIL
Pipe Crossing

4.5 Kerb Side Path Crossing – Maximum Down



NOTES:

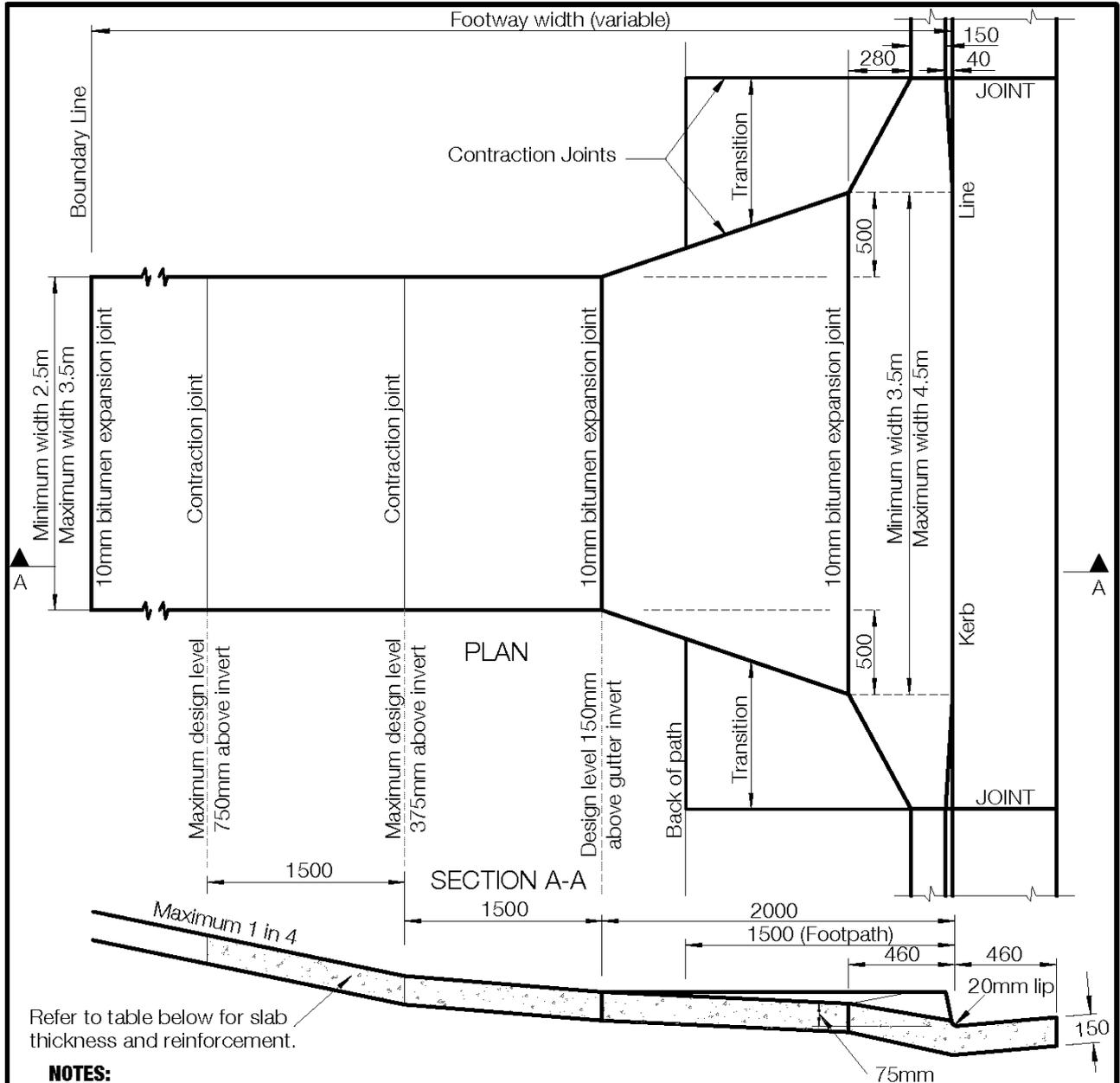
1. All edges to be shaped with a 50mm edging tool. (10mm radius)
2. Compressive strength of concrete to be greater than 20 MPa at 28 days.
3. The road base course is to extend beneath the kerb and gutter.
4. Mastic joints to be placed not more than 6m or less than 4m apart.
5. All reinforcement is to 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 Down

4.6 Kerb Side Path Crossing – Maximum Up



NOTES:

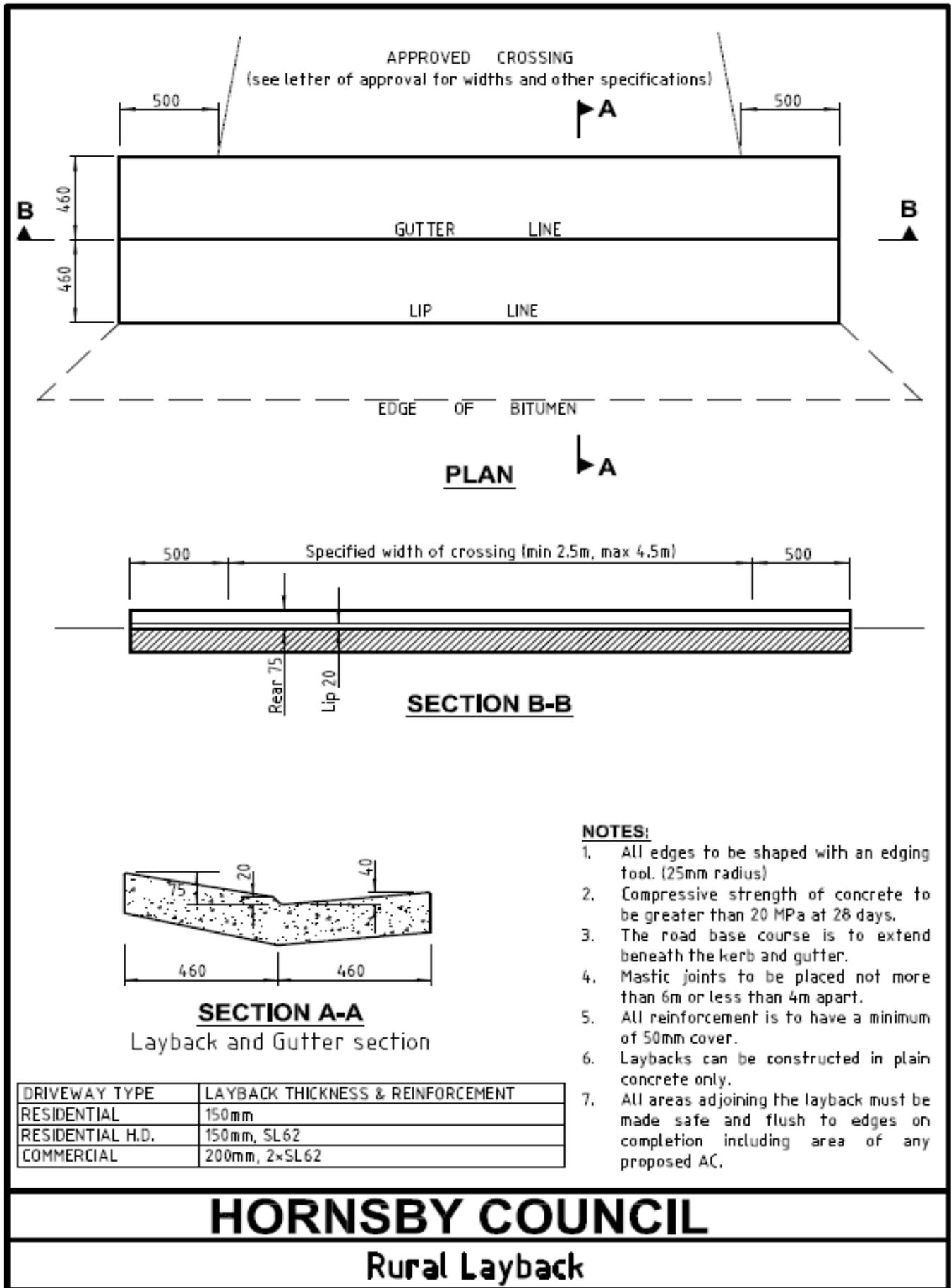
1. All edges to be shaped with a 50mm edging tool. (10mm radius)
2. Compressive strength of concrete to be greater than 20 MPa at 28 days.
3. The road base course is to extend beneath the kerb and gutter.
4. Mastic joints to be placed not more than 6m or less than 4m apart.
5. All reinforcement is to 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

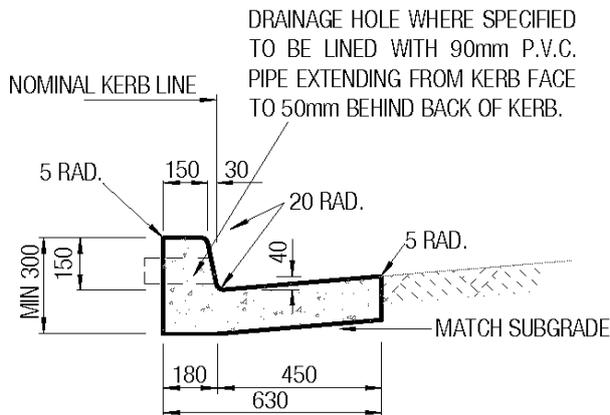
Kerb Side Path Crossing - Maximum Up

4.7 Standard Rural Layback

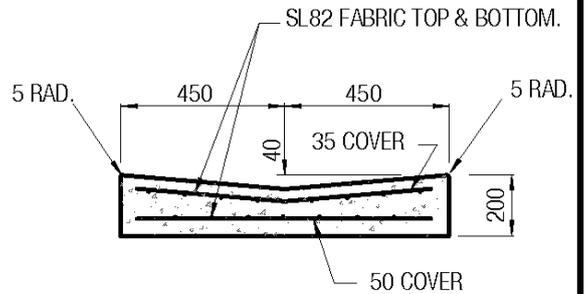


HORNSBY COUNCIL
Rural Layback

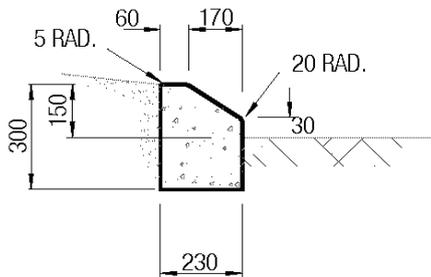
4.8 Kerb And Guttering – Standard Types



150mm INTEGRAL K & G

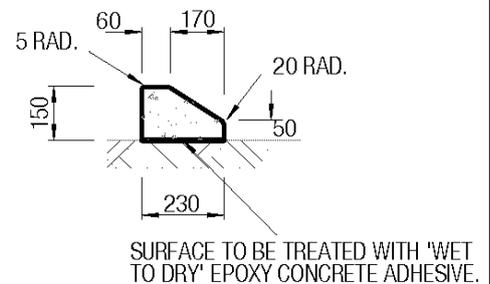


DISH CROSSING



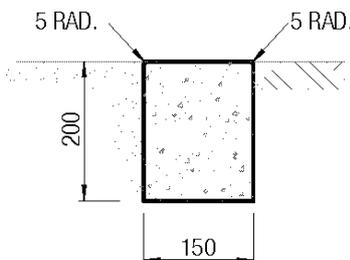
MOUNTABLE KERB (A)

(Type used for medians and traffic islands).

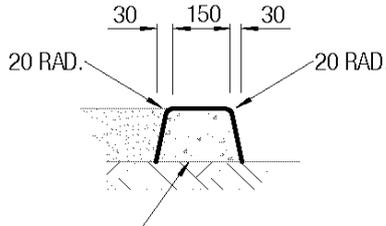


MOUNTABLE KERB (B)

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



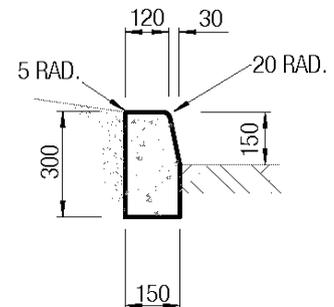
EDGE STRIP



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.