Insurance Requirements

Prior to the commencement of any work within the road reserve the applicant shall forward to Council for inspection and recording a copy of the contractors "Certificate of Currency" public liability insurance which has a minimum cover of $20 Million.

The Contractors shall meet the following requirements and accept the following risks in connection with any work under this Specification:

a. The Contractor shall undertake the whole risk of carrying out the Contract and without limiting the generality thereof shall hold the Richmond Valley Council indemnified against all claims arising out of any injury to any person or persons including but limited to the Contractor or his employees or employees of the Council or damage to any property whatsoever including property of the Council.

b. The Contractor shall at his own expense insure and keep insured the following policies of insurance during the period of the work:
   1. his workmen or employees pursuant to the requirements of the Workers' Compensation Act, 1926, and any Act amending that Act with an insurer approved by the Council, with an unlimited common law cover.
   2. damage or loss of the plant by theft, whether the same shall be caused by the acts or defaults of the Council or its servants or otherwise. This policy shall be for full replacement value.
   3. against any injury to any third party or parties or damage to any property whatsoever caused by the use of the plant when driven or operated by the Contractor or his employee or caused by any person driving or operating such plant. The cover in this paragraph (number 3) is to be for a minimum of $20,000,000.

c. All insurance policies shall be extended to cover the legal liability of the Council as Principal.

d. The Contractor's responsibility as per Insurance requirements shall continue until the date shown on the final certificate of all work is satisfactorily completed as shown on Council's records.

e. **Prior to the commencement of any work within the road reserve, it is the applicants' responsibility to provide Council with a copy of the Contractors, "Certificate of Currency" with a minimum cover of $20 Million, for inspection and recording.**

Protection of the Public

The contractor shall be responsible for the provision and maintenance of all lights, barriers, fencing, etc. that is necessary for the protection of the public from damage or injury. Such safety measures shall remain in place for the full time that the road reserve area is being used as a work site. Occupation Health and Safety Laws shall be adhered to by the contractor at all times.

If the Contractor fails to erect and maintain adequate lights, barriers, fencing, etc., Richmond Valley Council staff may arrange for lights, fencing and/or barriers to be erected to protect the public, with any cost incurred by Council in providing these being recovered from the deposit.

Traffic Control Plans shall be prepared where pedestrian or vehicular traffic will be impeded.

1 General

The vehicle accessway comprises two (2) components being:

i. "**Gutter Crossing**" or "**Crossing**" - that section within the gutter or longitudinal drainage channel on the edge of the street or road – layback, dish, bridge, or pipe.

ii. "**Driveway Apron**" or "**Apron**" - that section from the gutter to the property boundary.

These components may be constructed singly or together. Gravel aprons are acceptable in rural locations.

All work will be in accordance with this Specification and under the supervision of Council's Executive Manager of Infrastructure & Environment or his/her representative.

NOTE: Prior to placing formwork, Council is available for consultation if required.

2 Nature of Work

The work to be carried out shall include excavation in all classes of material, removal of excavated material from the site, the supply and erection of formwork, supply and placing of approved jointing material, supply, placing, finishing and curing of concrete, the removal of formwork, the trimming of adjacent areas to suit the new work and the removal of all surplus materials on completion.
The crossings shall be constructed in-situ, aligned in straight lines (or in circular curves as appropriate), as marked on the ground, or as may be directed. They shall be constructed without local irregularities, true to grade, with vertical eases as required at changes of grade, such grade will not necessarily be in relation to existing levels. The construction shall be in accordance with dimensions shown on standard drawings.

Council will specify for each location the type of crossing, size of the vehicular crossing, and any associated work which has to be carried out in conjunction with the crossing.

3 Requirements and Drawings

- Northern Rivers Local Government Standard Drawings show dimensions and specification notes for the various types of crossings (available at http://www.lismore.nsw.gov.au/lp.asp?cat=240);
- vehicles should preferably travel in a forward direction when entering or leaving the property (mandatory for multiple unit, commercial and industrial developments);
- the direction of travel should desirably be 90º to the centreline of the road (absolute minimum of 70º);
- **the maximum change of grade shall be 12% for a crest and 14% for a sag.**
- the access is to be located so as to provide adequate sight distance in both directions along the road. Entrances on the inside of corners are discouraged.

RTA Road Design Guide - Section 4.7 General Geometry of Approaches at an Intersection Site Table 4.7.4

Travel Speed km/h	Minimum Gap Sight Distance (m)	
40	55	Distances are for bituminous or concrete surfaces. **Longer distances are applicable to gravel roads.**
50	69	
60	83	
70	97	
80	111	
90	125	
100	140	

Ø **Laybacks, Dish Crossings, Bridge Crossings and Aprons**

Northern Rivers Local Government Development and Design Manual – Standard Drawings

Drawing No. NRLG - R-06, R-15	Longitudinal Grading Details – Residential, Rural
Drawing No. NRLG – R-05, R-07	Standard Layback Type – Light and Heavy Duty - integral with kerb and gutter. (includes apron details)
Drawing No. NRLG – R-14	Pipe and Dish Type - usage where no kerb and gutter exists. (includes apron details)
Drawing No. RVC - VA4	Kerb and Gutter Bridge Crossing type - only to be used in exceptional circumstances with prior approval by RVC

These crossings shall comply with the following:

- maximum of two crossings per street frontage for
    - i residential crossings of 5.0m width
    - ii industrial crossings of 6.0m width;
- one (1) crossing per street frontage for
    - i residential crossings of > 5.0m width (max 8.0m)
    - ii industrial crossings of > 6.0m width (max 10.0m);
- end of crossings located a minimum of 6m from street intersection boundaries;
- a minimum kerb distance of 0.5m from common property boundaries
- a minimum kerb distance of 2m between crossings on a single street frontage;
- dish crossings shall be aligned parallel to the invert of the existing table drain and at the same level. In no case should the invert of the crossing be closer than 2.5m from the outer edge of the road shoulder;
- aprons across road shoulders, between the crossing and the edge of bitumen, shall be sealed

Ø **Pipe Crossings**

Northern Rivers Local Government Development and Design Manual – Standard Drawings Drawing No. NRLG – R-14, R-15 useable in both urban and rural situations where circumstances will not permit either layback or dish type.

These crossings shall comply with the following:

- **headwalls shall be RMS crash compliant** and are to be provided at either end of the pipes;
- pipe diameter will be determined by Council unless design calculations are submitted with the application; · minimum 300 mm diameter (urban) or 375 mm diameter (rural) concrete pipe of minimum width 4.88m is to be laid in the table drain, at a minimum of 2.5m from the edge of the road shoulder;
- pipes are to be concrete, rubber ring joint (or butt with sealed joint), minimum class 3, and laid in accordance with the manufacturers specification;
- bedding to be a minimum of 50mm of compacted sand or similar bedding material, shaped to ensure that the collar and barrel are uniformly supported for the full width of the pipes.
- backfill to a minimum of half (½) height of the pipes with well compacted sand, metal dust or similar;
- pipes are to be covered with a minimum of 150 mm of road base or similar approved material. If concrete instead of gravel, then as per crossing aprons;
- where the natural surface slopes steeply to or from the road (> ± 10%), the access to the lot will require special consideration;
- fill placed over the pipes shall not spill onto nor affect the road shoulder in such a way as to interfere with the through traffic;
- the driveway section located within the road reserve is to be constructed with flexible pavement of a minimum 150 mm compacted thickness gravel base 3.0m wide; and
- a suitable standing pad of one vehicle length is to be constructed (pavement as above) to allow a vehicle to stop before entering the roadway and also enable the sight distance requirement to be achieved. The gradient of the standing pad shall not exceed ±4%.

Ø **Patterned Concrete Apron**

- Construction of an apron from the gutter crossing to the footpath slab and or property boundary shall be by full width slab as shown on the drawings.
- Refer to the plans for concrete aprons as applicable to the crossing installed.
- A patterned concrete apron finish is not encouraged in view of the difficulties in matching the existing if it is necessary to cut and remove/replace part of the apron.
- Council will not be responsible for such work in the event that it becomes necessary for any reason whatsoever.

Ø **Brick Paving Apron**

Drawing No. RVC VA5 Apron – Brick Paving Type

- Construction of an apron from the gutter crossing to the footpath slab and or property boundary shall be by full width slab as shown on the drawings.

- As per patterned concrete aprons, these are not encouraged, and require prior approval by Richmond Valley Council in exceptional circumstances only.
- Council is not responsible for the matching of the pavement colour or style in the event of disturbance to the apron for any reason whatsoever.

4 Excavation

Excavation shall be carried out in a workmanlike manner to produce a boxing to suit the depth of concrete specified plus an extra 50mm to allow a bed of clean sand, fine crushed rock or metal dust to be placed. Excavated material shall be removed from the site and disposed of at the Contractor's expense.

The bottom of the excavation shall be neatly trimmed and compacted to produce a firm foundation. A hollow is to be excavated to contain any pipe collars. Any soft sub grade shall be replaced and any over excavation shall be made good using selected sound material from the excavation or imported filling. In either case the material used shall be approved by the Executive Manager Infrastructure & Environment or his/her representative.

In situations where the crossing is to be constructed at a higher level or new alignment in unstable ground, the Executive Manager Infrastructure & Environment or his/her representative may direct that a foundation be prepared. The prepared foundation will consist of a minimum of 200mm depth below sub grade of broken stone, compacted so as to form a satisfactory and unyielding foundation.

5 Design Levels

Survey design can be carried out by Council at the applicants cost, under Council's Private Works Policy.

6 Formwork

Formwork free of defects (loose knots, irregularities etc) shall be erected to produce the finished work to the levels and dimensions specified or shown on the drawings. Formwork shall be substantial and securely pegged or supported so as not to yield during placing and finishing of concrete. It shall be coated with an approved releasing oil in advance of the placing of reinforcing steel (to ensure that the surface of the reinforcing steel is not contaminated by the oil), and before the concrete is placed. Formwork shall remain in place for at least three days after the concrete has been placed.

7 Concrete

Concrete shall be plant mixed and delivered to the site in agitator trucks. Concrete strength shall be not less than 25MPa, with a maximum nominal aggregate size of 20mm and a slump of 100 mm. The strength to which this Clause refers is the 28 day cylinder strength and the concrete may be sampled and tested in accordance with Australian Standard 1012 Parts 1 and 9 respectively. Concrete will be accepted if it reaches eighty per cent of the 28 day strength in 7 days. Concrete which fails to meet the 28 day strength requirement may be accepted at the discretion of the Executive Manager Infrastructure & Environment up to a maximum deficiency of ten percent. Where the deficiency exceeds ten per cent, the Executive Manager Infrastructure & Environment may require the concrete to be removed.

8 Placing and Finishing

After the formwork has been set up, sand bedding compacted, formwork oiled, and reinforcing placed, i.e. ready to pour, the Contractor shall arrange for an inspection of the work by the Executive Manager Infrastructure & Environment or his/her representative. A fluro red "DO NOT PROCEED" sticker will be placed on or around the reinforcement steel if the access has failed the pre pour inspection the contractor should contact Councils Engineering Assistant on telephone (02) 6660 0300.

Concrete shall not be placed until after the work is approved by the Executive Manager Infrastructure & Environment or his/her representative. Non-compliance may result in acceptance of the work being withheld.
Notice of at least one working day is required for this inspection.

Before concrete is placed the base shall be watered to a damp condition to prevent drying in the lower surface of the concrete.

The mixed concrete is to be placed on the prepared surface at such a rate as not to allow any concrete to take its initial set before fresh concrete is placed against it.

During placing, the concrete shall be thoroughly compacted by continuous spading, slicing, screeding off or tamping with suitable tools to eliminate voids or honeycomb pockets and shall be worked around any reinforcement into the corners of the formwork.

The upper surface of the concrete shall be true and even, free from stone pockets, depressions or projections beyond the surface, and finished to a non-slip surface by means of a wood float and or hair broom.

Edges and dummy joints shall be marked with an approved edging/jointing tool so as to leave neatly rounded corners.

Construction joints shall be constructed in the positions indicated on the drawings or as directed. In general they shall be provided at a maximum of 6m intervals in footpaths and kerb and gutter, as well as at tangent points, meeting points of crossing/apron, existing paving/kerb and gutter, etc. Dummy joints (longitudinal) are to be provided at 2m intervals.

Mastic or Ableflex jointing shall be cut to conform to the cross section of the concrete and shall be for the full depth of the concrete.

9 Curing

After the concrete has been placed, finished and sufficiently hardened it shall be covered with a layer of clean sand or hessian and kept in a damp condition for three days. Alternatively, a membrane of an approved curing oil may be sprayed so that all the exposed surface is evenly coated. The curing membrane shall be placed as soon as the concrete has been finished.

10 Trimming of Area

When the formwork has been removed the area shall be trimmed and or made good by cutting and or filling the nature strip adjacent to the new accessway to a gradient not exceeding one in ten but, in any case, so that water will not pond adjacent to the work.

Where filling is required, the material shall be good quality sandy loam top soil approved by the Executive Manager Infrastructure & Environment.

Where cutting is required the existing top soil will be accepted so long as no clay is uncovered. If clay is exposed, the cutting shall be taken an additional 50 mm deep and refilled with approved top soil.

11 Protection of the Work

It shall be the Contractor's responsibility to protect the work for a period of three days from the date the concrete is placed and if the work is damaged or defaced in that time, it shall be made good.

12 Completion of the Work

The crossing is to be completed within six (6) months of the application date and the contractor shall complete any one crossing within five working days of commencing the excavation unless prevented by circumstances beyond his control. If the Contractor cannot complete any work within five days he shall apply to the Executive Manager Infrastructure & Environment or his/her representative and obtain, in writing, an extension of time, which extension shall not unreasonably be withheld.

13 Failure to Complete

If the Contractor fails to complete any work within the time specified or extension of time in Clause 12, the Executive Manager Infrastructure & Environment may order the work to be completed using Council's labour and or plant and the cost incurred by Council in so doing may be deducted from moneys held as deposit.

14 Mains and Services

It shall be the Contractor's responsibility to locate and protect any water or sewer mains or services and electricity or telephone cables at the site of the work. The cost of repairs to any of these mains, services or cables damaged during the work shall be borne by the Contractor.
A construction joint with Ableflex jointing material shall be provided at the property boundary for the full width of the apron.

15 Stormwater Outlets

Where stormwater outlets have been laid and now conflict with the work they shall be relocated, extended or adjusted as directed by the Executive Manager Infrastructure & Environment or his/her representative.
Adjustments shall be made using an approved type of pipe having a nominal diameter of 100 mm laid to an even grade and properly jointed.

16 Inspection of Work

The work shall be inspected and photographed by the Executive Manager Infrastructure & Environment or his/her representative at the following hold points:

- **1a for concrete crossings and aprons - after the formwork has been set up, sand bedding compacted, and reinforcing in place, i.e. ready to pour concrete,**
- **1b for pipe crossings - after the placement of pipes but prior to the installation of headwalls and backfilling.**
- **2 final inspection at the full completion of the crossing/apron, i.e. all formwork removed, all backfilling carried out, all rubbish removed, and no trip areas, etc.**

Any work found to be unsatisfactory shall be corrected and submitted for further inspection before proceeding. Additional inspection will incur fees as set out in Councils approved fees.

Responsibility

It is the responsibility of the applicant to ensure that any contractor engaged to carry out any work within the road reserve is conversant with and carries out the works in accordance with this specification.

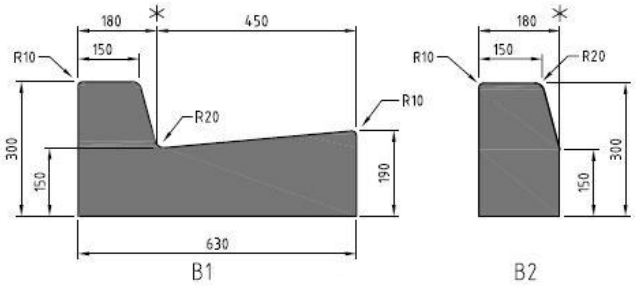
Prior to the commencement of any work within the road reserve, it is the applicants' responsibility to provide Council with a copy of the Contractors, "Certificate of Currency" with a minimum cover of $20 Million, for inspection and recording.

Maintenance of works and structures – Section 138, Roads Act 1993
Approval must be sought from the road authority (Richmond Valley Council) prior to any works being carried out in the road reserve.

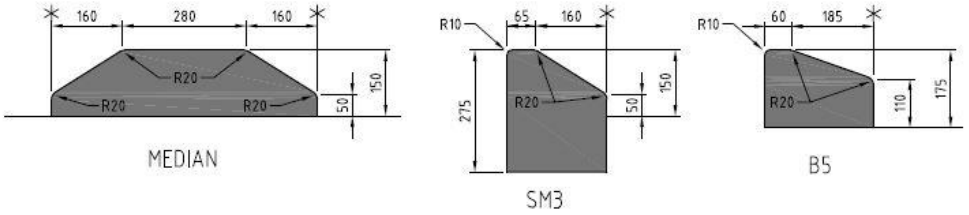
Maintenance of works and structures – Section 142, Roads Act 1993
(1)A person who has a right to the control, use or benefit of a structure or work in, on or over a public road:

- ***(a) must maintain the structure or work in a satisfactory state of repair, and***
- ***(b) in the case of a structure (such as a grating or inspection cover) located on the surface of the road, must ensure that the structure is kept flush with the surrounding road surface and that the structure and the surrounding road surface are so maintained as to facilitate the smooth passage of traffic along the road.***

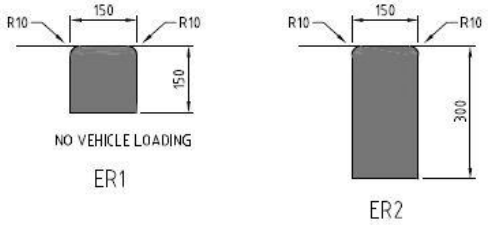
Restoration Works on pavements, footpaths, kerb and gutter, crossings, etc. – refer Fees and Charges (Revenue Policy).



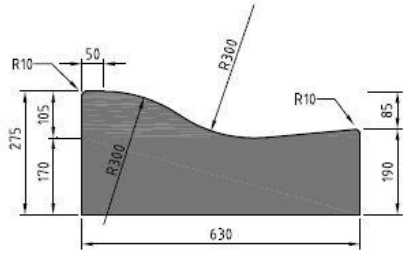
UPRIGHT KERB



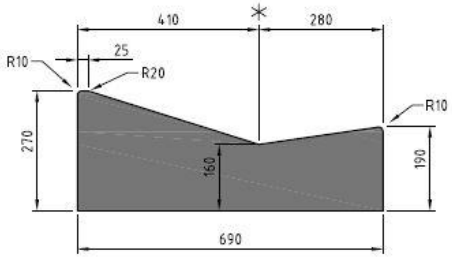
SEMI-MOUNTABLE



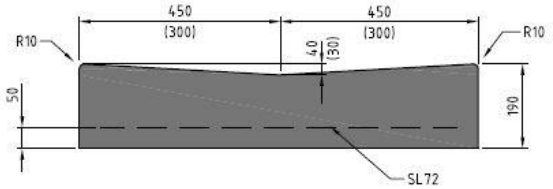
EDGE RESTRAINT



MOUNTABLE / ROLLTOP KERB



MOUNTABLE / LAYBACK KERB



INVERT OR DISH GUTTER

NOTES:
1. All materials and construction shall comply with AS 2876 except for dimensions on this drawing
2. All concrete N25 min (refer project documentation) in accordance with AS 1399 and AS 3600
3. Reinforcement bars to AS 1302, trench fabric to AS 1304
4. All dimensions in millimetres

LEGEND

✳ NOMINAL KERB LINE FOR SETTING OUT.

NOT TO SCALE

B	MOUNTABLE ROLLTOP KERB ADDED		18/2/09
A	ORIGINAL ISSUE		3/10/06
REVISIONS		APP'D	DATE

STANDARD DRAWINGS

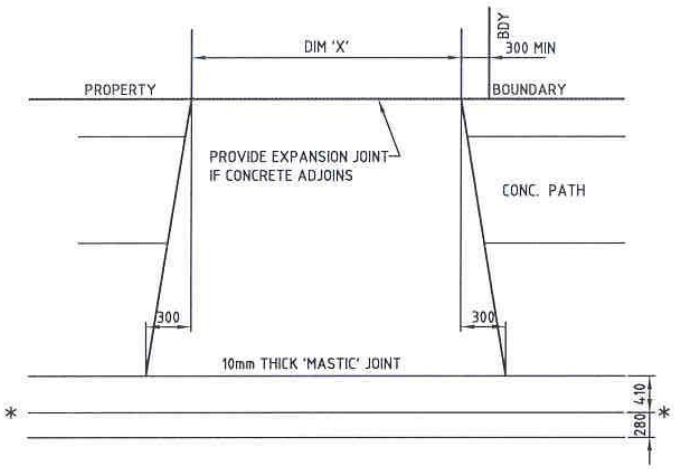
NORTHERN RIVERS LOCAL GOVERNMENT

KERBS AND GUTTERS, EDGE RESTRAINTS, MDIAN & INVERT PROFILES AND DIMENSIONS

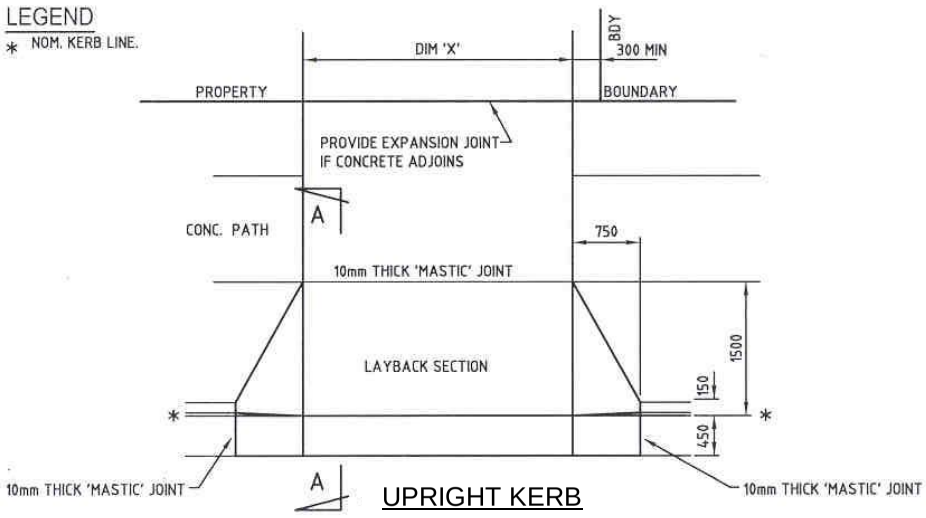
ROAD/STREET STANDARD DRAWING

R-03

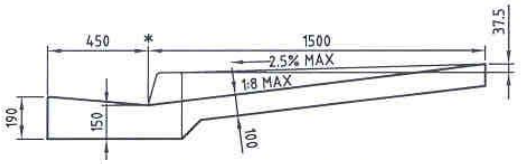
A | B



MOUNTABLE KERB



UPRIGHT KERB



LAYBACK VEHICLE CROSSING SECTION A-A

NOTES:

1. Footpath section to vary where necessary to match concrete footpaths and verge profiles, footpath earthworks adjoining concrete must be well compacted.
2. Concrete surface tolerance to be +5mm 0mm over 3 metre sections.
3. Concrete N25 in accordance with AS 1379 and AS 3600.
4. Reinforcement fabric to AS 1304, 50 top and edge cover, lap fabric 250.
5. Expansion joints to be 10 thick, full depth closed cell cross linked polyethylene foam (85-150 kg/m) or 10mm thick compressed granulated corkboard, installation to manufactures' instructions.
6. A street opening permit must be obtained from Council. Seek approval of location and levels prior to excavation.
7. Refer to standard drawing No. R-14 for Verge Type Cross Sections.
8. Grade not to exceed 1 in 14 where disability access is required.
9. All dimensions in millimetres.
10. Existing footpath profile to be maintained where possible.
11. Compaction for subgrade 95% standard to AS 1289.1.1.
12. Concrete driveway unless otherwise approved.
13. Paver and/or proprietary concrete surface finishes to driveway shall only be used when approved by Local Authority.

TYPE OF DRIVEWAY	WIDTH AT BOUNDARY 'X' mm	THICKNESS 'T' mm @ REINFORCEMENT
SINGLE DWELLING OR DUPLEX UNIT	3000 min. 6000 max	100mm with SL72
UNITS LOCAL STREETS	REFER TO A.S.2890	150mm with SL72
× UNITS COLLECTOR ROADS	REFER TO A.S.2890	150mm with SL72
× COMMERCIAL/ × INDUSTRIAL	REFER TO A.S.2890	200mm with SL82

NOT TO SCALE

A	ORIGINAL ISSUE		3/10/06
	REVISIONS	APP'D	DATE

STANDARD DRAWINGS

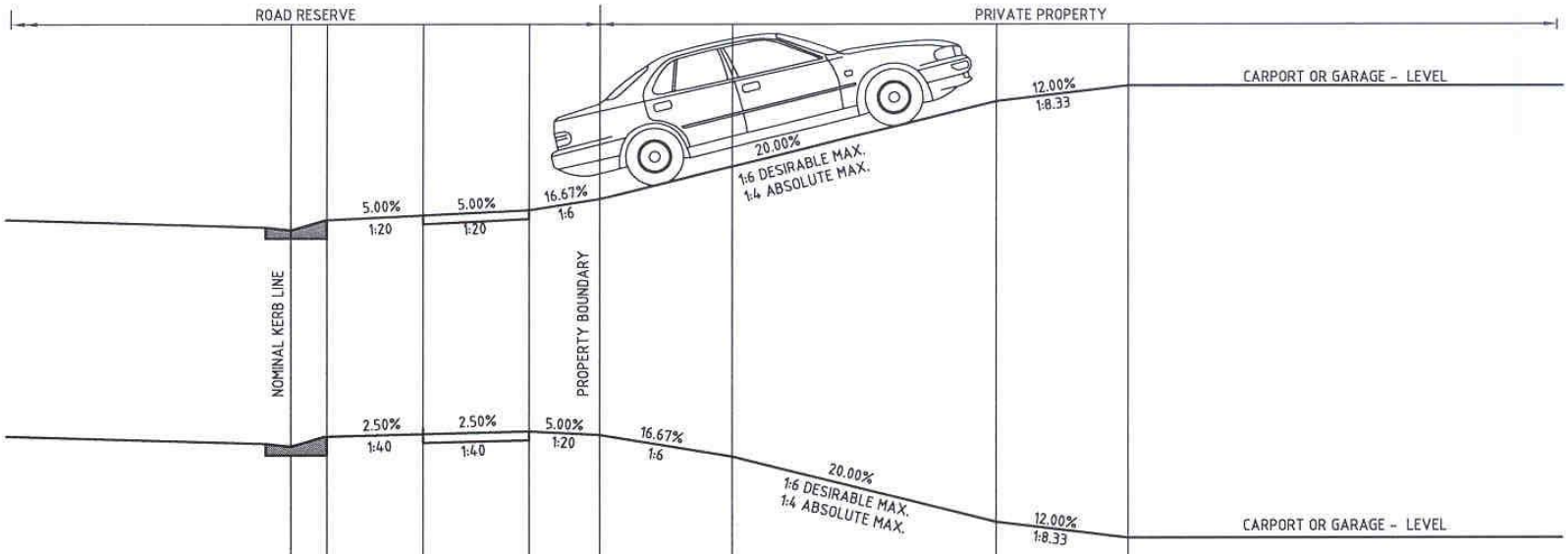
NORTHERN RIVERS LOCAL GOVERNMENT

RESIDENTIAL DRIVEWAY LAYOUTS & LAYBACK VEHICULAR CROSSING

ROAD/STREET STANDARD DRAWING

R-05

A



HIGH SIDE	00	+0.113	+0.168	+0.228	+0.361	+0.736	+1.486	+1.666	
LOW SIDE	00	+0.113	+0.140	+0.172	+0.130	-0.120	-0.870	-1.050	
DISTANCE	00	0.41	1.50	2.70	3.50	5.00	8.00	9.50	

HIGH & LOW DRIVEWAY PROFILE (FOR MIN. 6.0m SETBACK)

NOTES

1. Refer to drawing R-05 fro Plan Layouts
2. Footpath crossovers must be perpendicular to the road or street (unless otherwise approved in exceptional circumstances).
3. Where no kerb exists, & exist. service road is sealed, the driveway shall be sealed from the edge of road to a point 3000 inside the property boundary, however, any driveway greater than 12% shall be sealed.
4. This standard may be varied under exceptional circumstances subject to approval by Council.

NOT TO SCALE

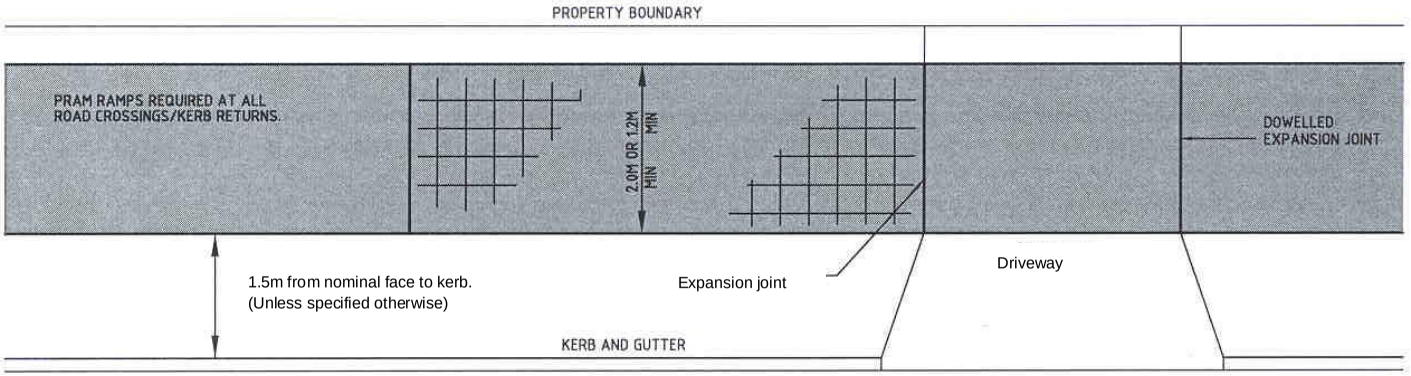
A	ORIGINAL ISSUE		3/10/06
	REVISIONS	APP'D	DATE

STANDARD DRAWINGS

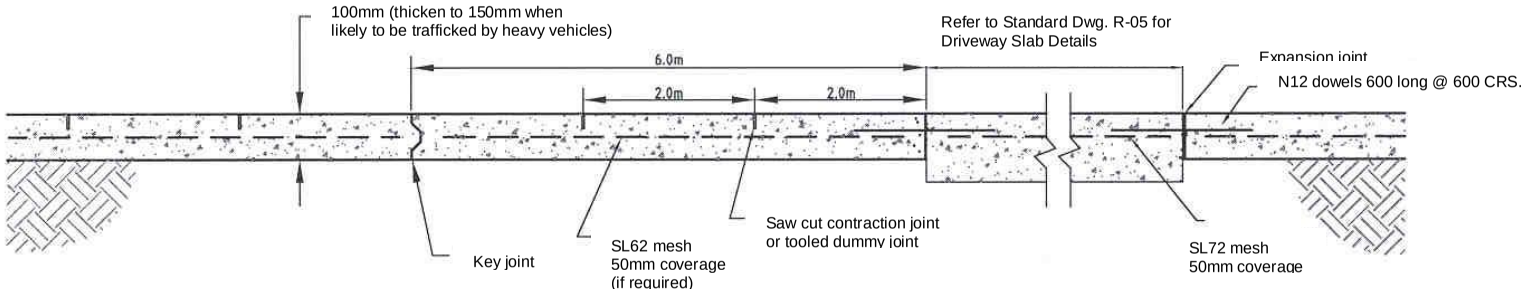
NORTHERN RIVERS LOCAL GOVERNMENT

RESIDENTIAL DRIVEWAYS
LONGITUDINAL GRADING
DETAILS

ROAD/STREET STANDARD DRAWING
R-06
A



PLAN VIEW



SECTIONAL VIEW

NOTES

1. All concrete is to be a minimum 20MPA
2. Footpath minimum 1.2m wide shared path minimum 2.0m wide
3. Expansion joints are to be of 15mm thick approved compressible joint filler, spaced at 12m max CRS
4. Layback detail and crossing grades refer to standard Dwg. R-05 & R-06
5. All concrete to be broom finished
6. Contraction joints to be at 2m max spacing
7. A road opening permit must be obtained from Council, seek approval of location and levels prior to excavation
8. Footpath crossfall to be 2.5 to 5.0%

NOT TO SCALE

A	ORIGINAL ISSUE		3/10/06
	REVISIONS	APP'D	DATE

STANDARD DRAWINGS

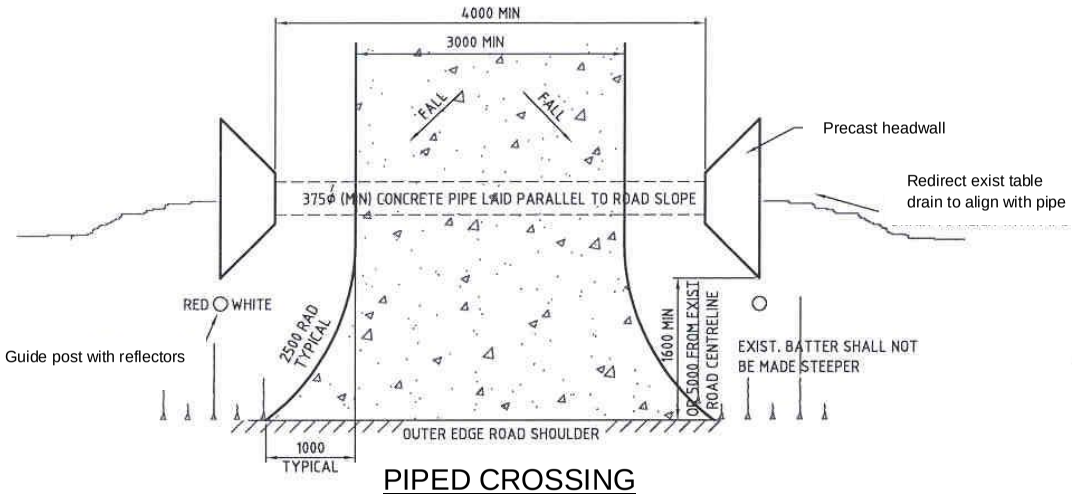
NORTHERN RIVERS LOCAL GOVERNMENT

CONCRETE FOOTPATH DETAILS

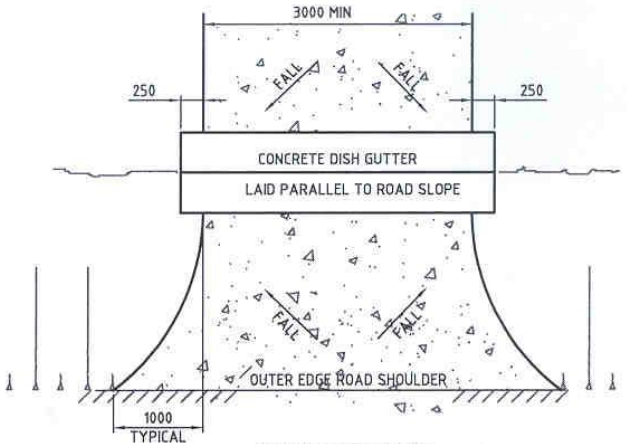
ROAD/STREET STANDARD DRAWING

R-07

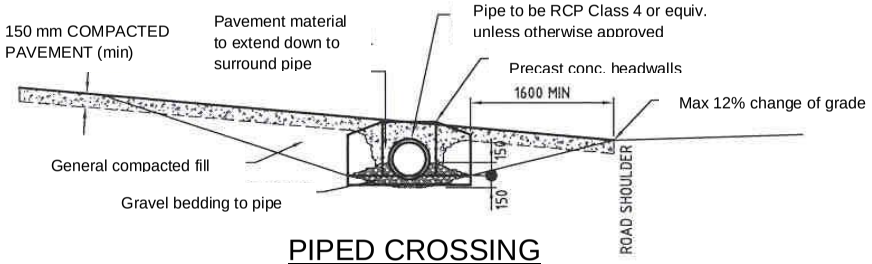
A



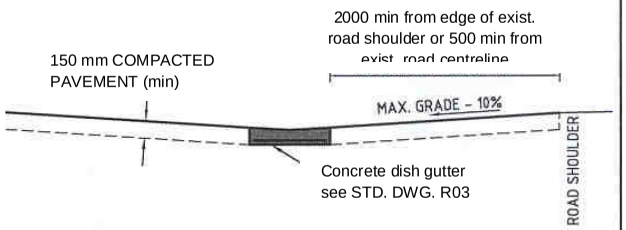
PIPED CROSSING



DISH CROSSING



PIPED CROSSING



DISH CROSSING

NOTES
1. Where existing service road is sealed, the driveway shall be sealed from the edge of road to a point 3000 inside the property boundary, however, any driveway greater than 12% shall be sealed.
2. Max change of grade to be 12% including transition from road. Max grade of driveway to be 25%.
3. Gates shall be set back a min of 5.5m from the road shoulders & shall open inwards.

NOT TO SCALE

A	ORIGINAL ISSUE		3/10/06
	REVISIONS	APP'D	DATE

STANDARD DRAWINGS

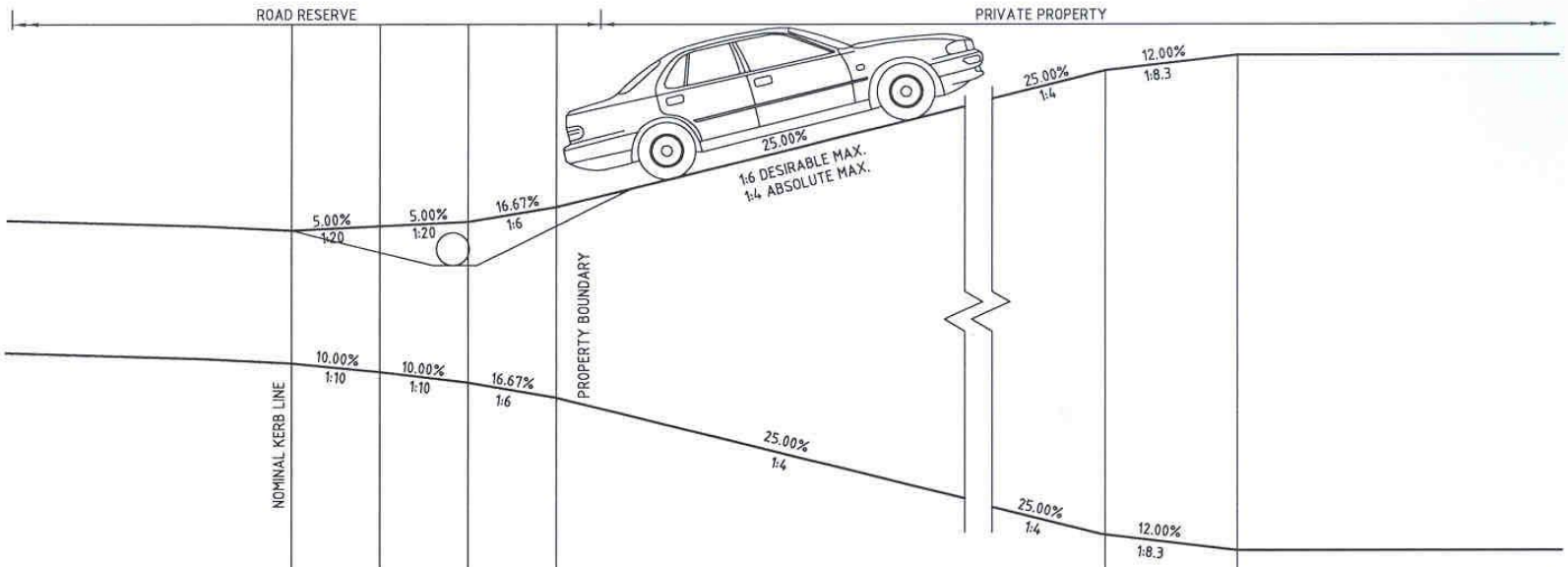
NORTHERN RIVERS LOCAL GOVERNMENT

DRIVEWAYS & VEHICULAR CROSSINGS FOR ROADS WITHOUT KERB & GUTTER

ROAD/STREET STANDARD DRAWING

R-14

A



HIGH SIDE	00	+0.05	+0.10	+0.267		X-0.180	X	
LOW SIDE	00	-0.10	-0.226	-0.395		X+0.180	X	
DISTANCE	00	1.00	2.00	3.00		-1.50	00	

DRIVEWAY PROFILE

NOTES

1. Refer to drawing R-14 for plan layouts.
2. Footpath crossovers must be perpendicular to the road or street (unless otherwise approved in exceptional circumstances).
3. Where the kerb exists, & exist service road is sealed, the driveway shall be sealed from the edge of road to a point 3000 inside the property boundary, however, any driveway greater than 12% shall be sealed.
4. This standard may be varied under exceptional circumstances subject to approval by Council.

NOT TO SCALE

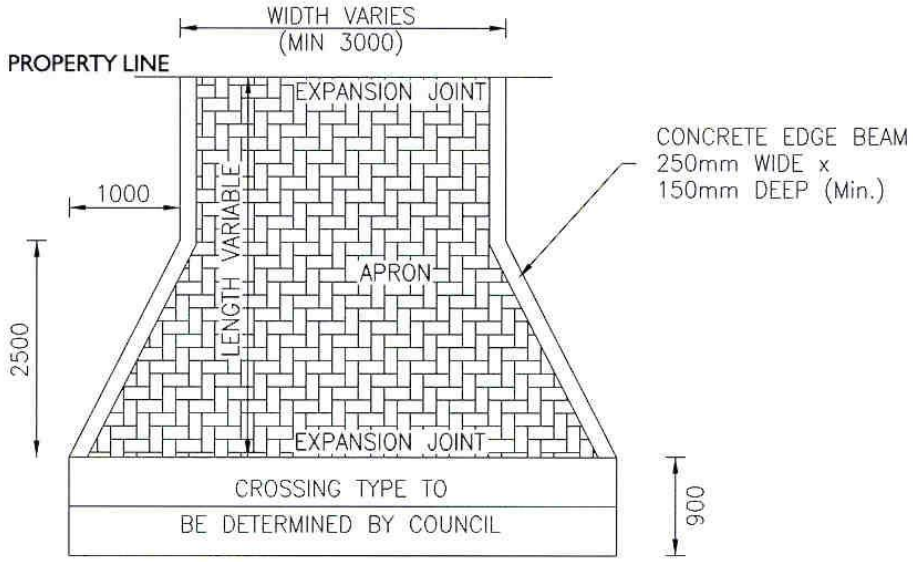
A	ORIGINAL ISSUE		3/10/06
	REVISIONS	APP'D	DATE

STANDARD DRAWINGS

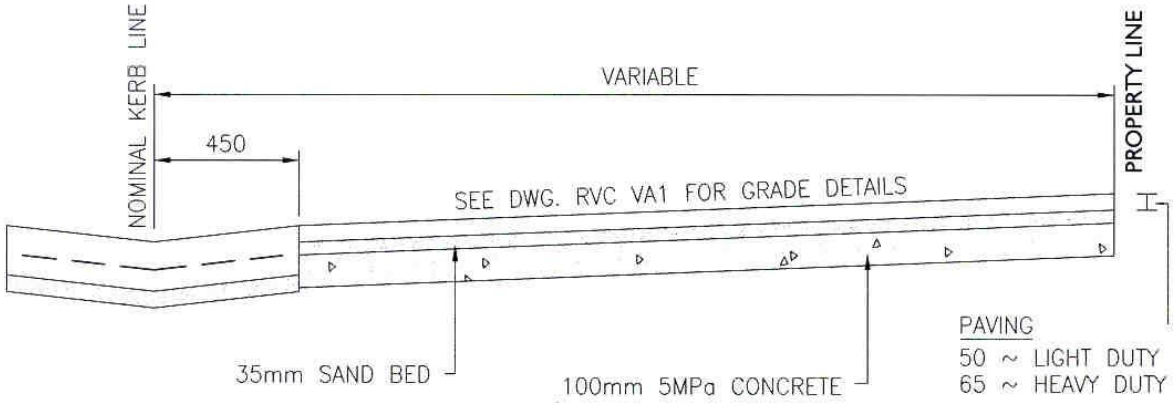
NORTHERN RIVERS LOCAL GOVERNMENT

RURAL DRIVEWAYS
LONGITUDINAL GRADING
DETAILS

ROAD/STREET STANDARD DRAWING
R-15
A



PLAN



TYPICAL SECTION

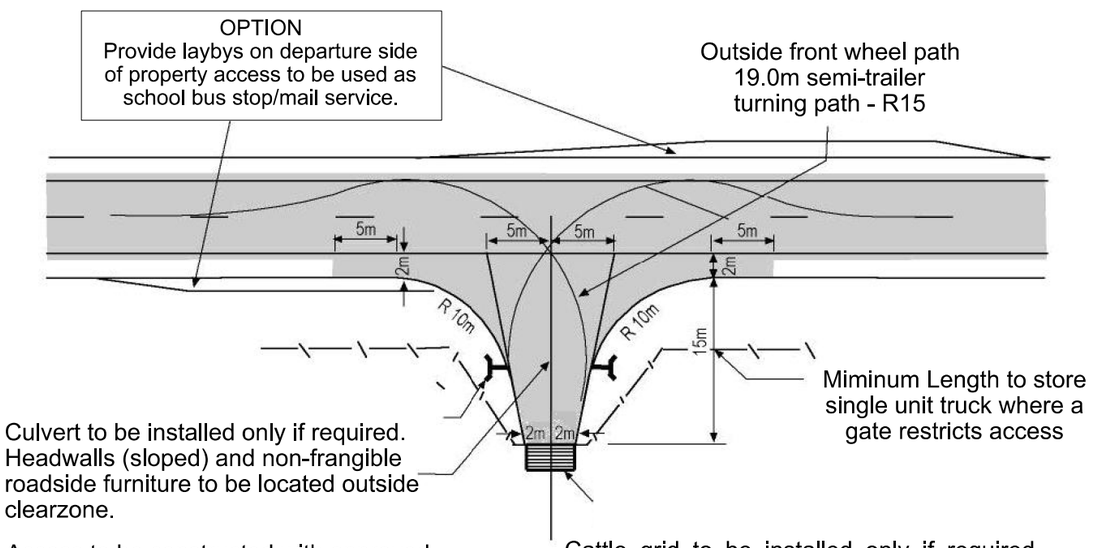
NOTES

1. TO BE USED WITH COUNCIL APPROVAL ONLY
2. CONCRETE STRENGTH TO BE 25MPa UNLESS INDICATED OTHERWISE
3. WHERE THE APROL COVERS A SERVICE MAIN, KEY JOINT SHALL BE PROVIDED 0.5m EITHER SIDE OF & PARALLEL TO THE MAIN FOR THE FULL WIDTH OF THE APRON
4. COUNCIL IS NOT RESPONSIBLE FOR MATCHING OF THE PAVING COLOUR/STYLE IN THE EVENT OF DISTURBANCE TO THE APRON FOR ANY REASON WHAT SO EVER

APPROVED DIRECTOR OF WORKS DATE 20.6.01	RICHMOND VALLEY COUNCIL	DWG No. RVC VA5
	VEHICLE ACCESSWAYS APRON ~ BRICK PAVING TYPE	DATE. JUL 2001

Typical Rural Property Access Standards

Access to be located where access driveway sight distance is available
Refer to AS2890.1 Table below



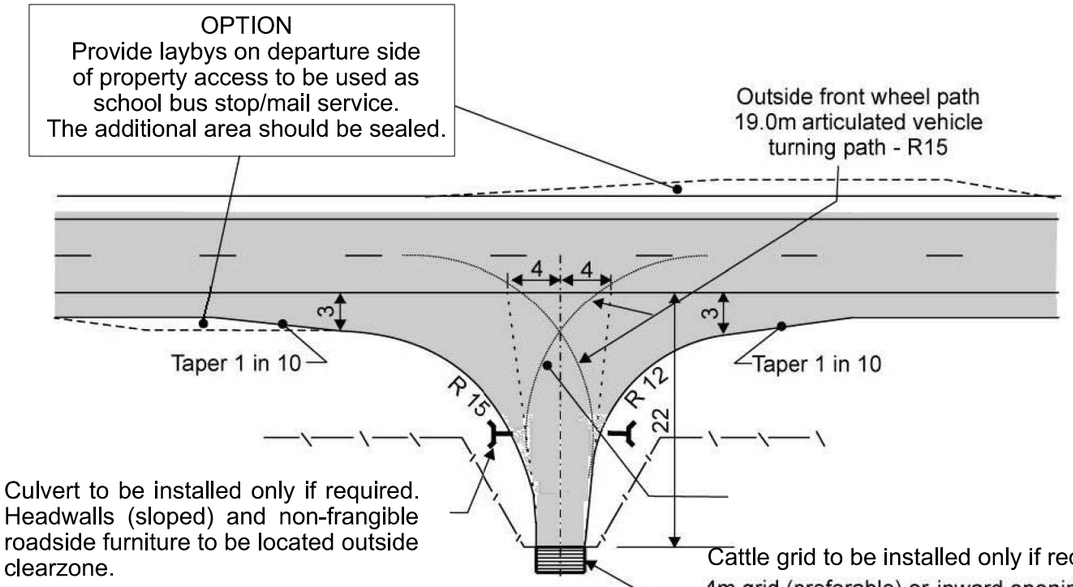
Miminum Length to store single unit truck where a gate restricts access

Culvert to be installed only if required. Headwalls (sloped) and non-frangible roadside furniture to be located outside clearzone.

Access to be constructed with approved compacted roadbase material and sealed as per Council specifications and requirements.

Cattle grid to be installed only if required. An inward opening 3.6m gate set back 15m from edge line is an alternative if access point is to be used by single unit vehicles 12.5m long or less.

Access to be located where accesss driveway sight distance is available
Refer to AS2890.1 Table below



Culvert to be installed only if required. Headwalls (sloped) and non-frangible roadside furniture to be located outside clearzone.

Access to be constructed with approved compacted roadbase material and sealed as per Council specifications and requirements.

Cattle grid to be installed only if reqired. 4m grid (preferable) or inward opening 3.6m gate.

Where road train access is required, the desirable width of 8 m should be provided (minimum width is 6 m).

1. Single Unit Truck

Reference: Austroads Guide to Road Design Pt 4 Fig 7.2

Frontage road speed (Note 4) km/h	Distance (Y) along frontage road m		
	Access driveways other than domestic (Note 5)		Domestic property access (Note 6)
	Desirable 5 s gap	Minimum SSD	
40	55	35	30
50	69	45	40
60	83	65	55
70	97	85	70
80	111	105	95
90	125	130	Use values from 2nd and 3rd columns
100	139	160	
110	153	190	

FIGURE 3.2 SIGHT DISTANCE REQUIREMENTS AT ACCESS DRIVEWAYS

NOTE 4: This is the posted or general speed limit unless the 85th percentile speed is more than 5km/h above the limit in which case the tabulated speed nearest the 85th percentile shall be adopted.

SOURCE: AS/NZS 2890.1 : 2004

2. Articulated Vehicles

Reference: Austroads Guide to Road Design Pt 4 Fig 7.4

NOTES:

A: Council may require work to be undertaken to Auspec standards www.natspec.com.au

B: All ongoing maintenance to rural propety access is the responsibility of the property owner.

C: Additional notes to Figure 3.2 can be found in AS/NZS 2890.1:2004 (Incorporating Amendment No.1)

No.	Amendment Description	Initials	Date
2	UPDATED SIGHT DISTANCE TABLE	FB	19.05.2020
1	SIGHT DISTANCE REQUIREMENT TABLE	FB	18.07.2016

A3 original | This sheet may be prepared using colour and may be incomplete if copied | Co-ordinate System: MGA Zone 56 | Height Datum: A.H.D.

SCALES

NOT TO SCALE

NSW GOVERNMENT Transport for NSW

DRAWN F.BROWN

REVIEWED D.JOHNSON

TRANSPORT FOR NSW

MODEL DRAWINGS

TYPICAL RURAL PROPERTY ACCESS

NORTHERN REGION

VERSION 2

REVIEWED DATE 19/05/2020

SHEET No. 1 OF 1

PRODUCED: $DATE$ AT $TIME$ $USER$
FILE PATH: $FILE$
PLOT DRIVER: $PLTDRVL$
PEN TABLE: $PENTBL$

VEHICULAR ACCESSWAY					
DA No.		**Field Inspection Check List**		**ACVA Bond No.**	
Location:		**Inspected by:**		**Date:**	
Residential		**Crossings – Dish, etc.**		**Commercial / Industrial / Multiple Domestic Units**	
	sight distance, etc.	Location		sight distance, etc.	
	5 m min	Length		5 m min	
	as required	Levels		as required	
	barricades etc.	Public Safety		barricades etc.	
	uniform	Excavation		uniform	
	50 mm	Bedding		50 mm	
	secure	Formwork		secure	
	SL72	Reinforcing		SL82	
	nil	Trip hazards		nil	
	all complete	**Final Inspection**		all complete	
		Crossings – Pipe			
	sight distance, etc.	Location		sight distance, etc.	
	5 m min	Length		5 m min	
	as required	Levels		as required	
	barricades etc.	Public Safety		barricades etc.	
	uniform	Excavation		uniform	
	150 mm	Bedding		150 mm	
	secure	Formwork		secure	
	min 300 ø urban	Pipe Diameter		min 300 ø urban	
	min 375 ø rural			min 375 ø rural	
	in-situ	Headwalls (RTA crash compliant)		in-situ	
	precast			precast	
	150 mm	Gravel surface		150 mm	
	nil	Trip hazards		nil	
	all complete	**Final Inspection**		all complete	
Light Duty Residential		**Aprons**		**Heavy Duty** Commercial / Industrial / Multiple Domestic Units	
	sight distance, etc.	Location		sight distance, etc.	
	3 m min	Width of boundary		3 m min	
	300 mm wider at crossing on each side	Taper from boundary to crossing (min 3.0m at boundary to min 3.6m at crossing)		300 mm wider at crossing on each side	
	barricades etc.	Public Safety		barricades etc.	
	uniform	Excavation		uniform	
	50 mm	Bedding		50 mm	
	secure	Formwork		secure	
	against crossing and at boundary	Construction joint at property boundary, and at kerb/crossing (“Connolly” key joint or similar)		against crossing and at boundary	
	100 mm	Slab thickness		150 mm	
	SL72	Reinforcing		SL82	
	nil	Trip hazards		nil	
	all complete	**Final Inspection**		all complete	