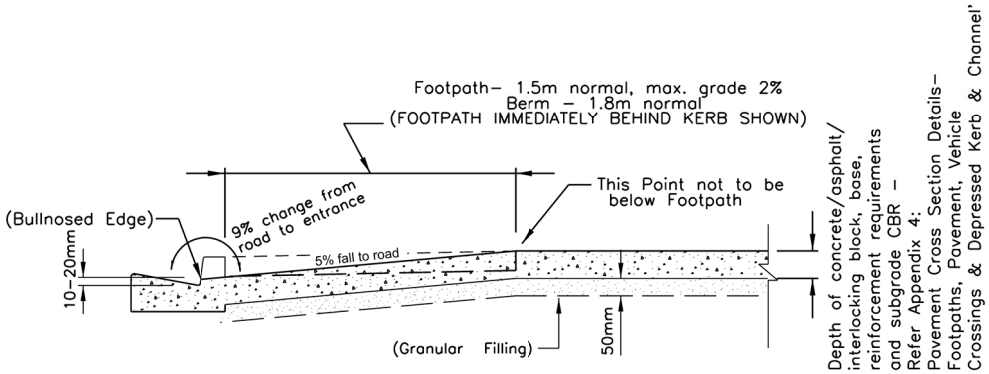
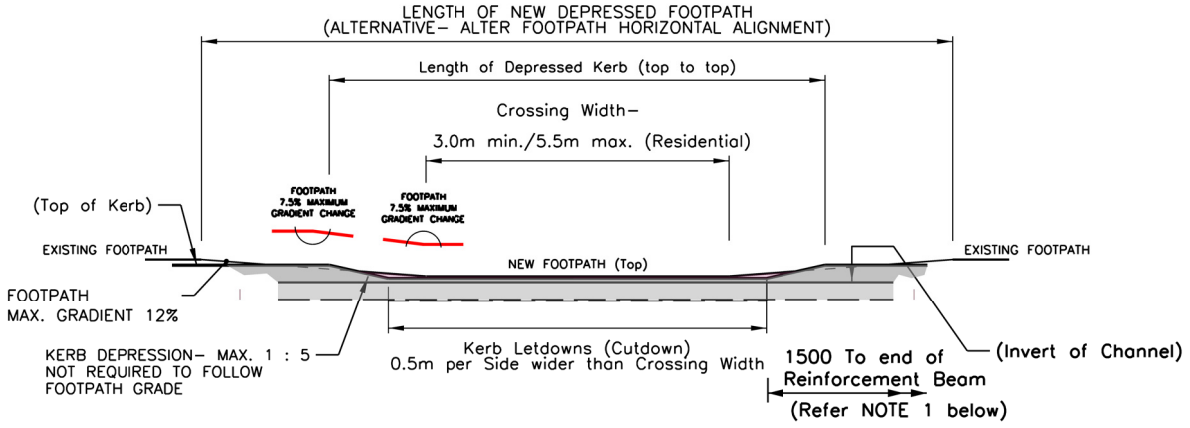
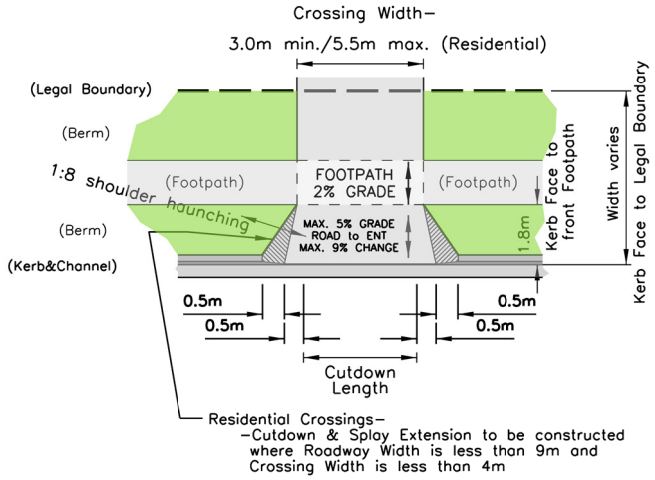
Appendix 4: Urban Residential
Vehicle Entranceway- Kerb & Channel Cutdown and Splays



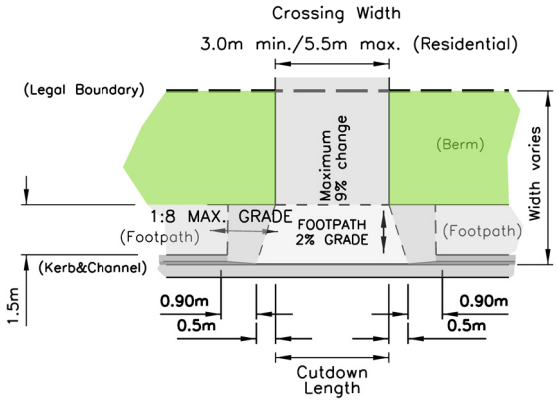
SECTION- THROUGH VEHICLE CROSSING



PROFILE- FRONT ELEVATION OF DEPRESSED KERB



PLAN- FOOTPATH OFFSET BACK FROM KERB MIN. 0.5m

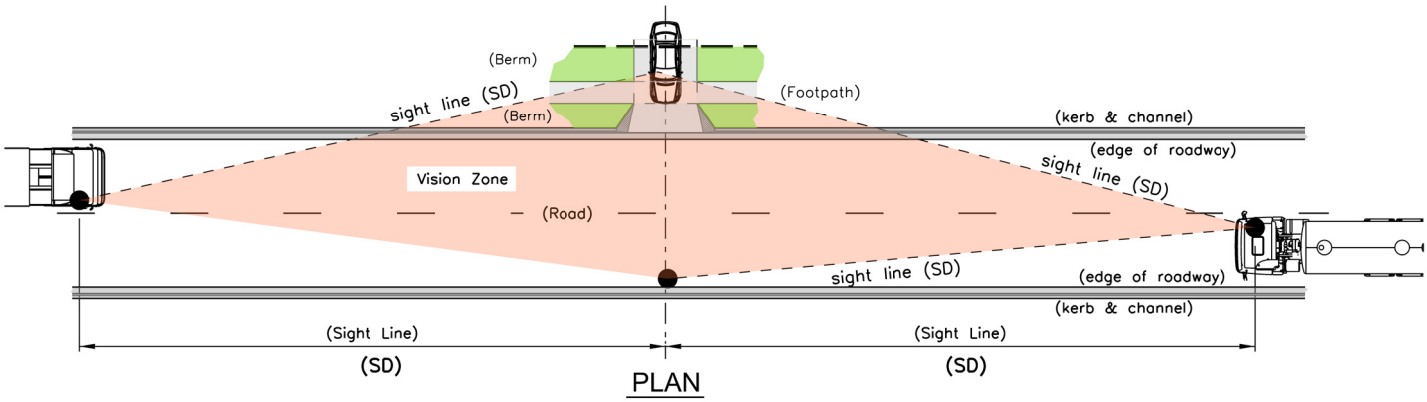


PLAN- FOOTPATH BESIDE KERB

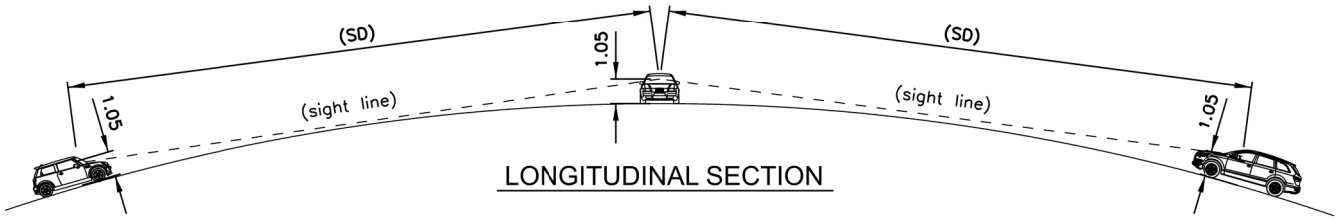
NOTES:

1. Where a commercial or industrial crossing is constructed, the reinforcement beam is to extend 1.5m either side of cutdown.
2. The cutdown and splay extension is to be widened by double the dimension shown where the carriageway width is less than 9m and the crossing width is less than 4m.
3. This area is to be formed and surfaced to the Commercial/Industrial standard for all Commercial/Industrial vehicle crossings. This may be extended to where footpath commences.
4. The footpath within the crossing area shall be surfaced with the same material as the footpath either side.

Appendix 4: Urban Residential
Vehicle Entranceways- Sight Distances, Longitudinal Grades



PLAN

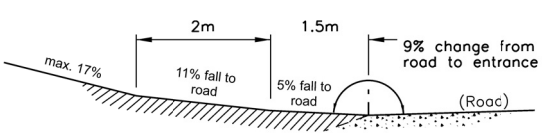


LONGITUDINAL SECTION

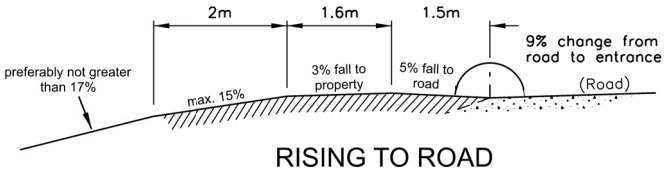
ENTRANCES- RELATED DISTANCES FOR SIGHT & PLACEMENT

Operating Speed	Minimum Sight Distance in any direction (SD)	Distance between Entrances (DE)	Distance between Entrances & approach to an Intersection (DEI A)	Distance between Entrances & departing an Intersection (DEI D)	Distance between Intersections (DI)
50	44	15	20	30	150
60	63	20	50	50	200

NOTE: Column 'Minimum Sight Distance in any direction (SD)' applies on Sealed Roads to vertical grades below 4%

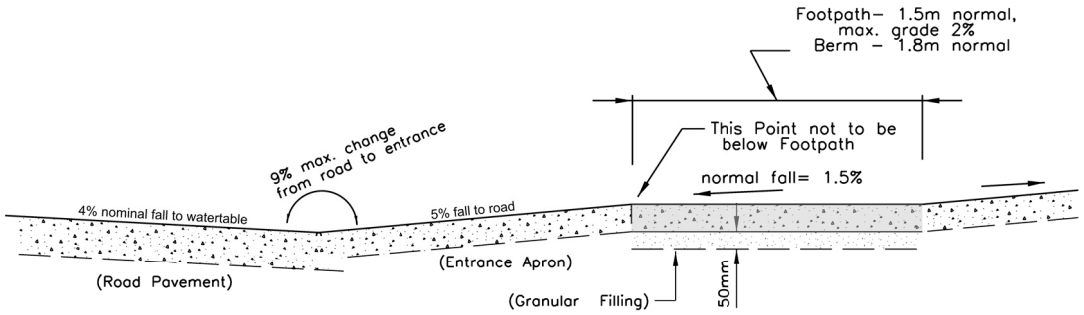


FALLING TO ROAD

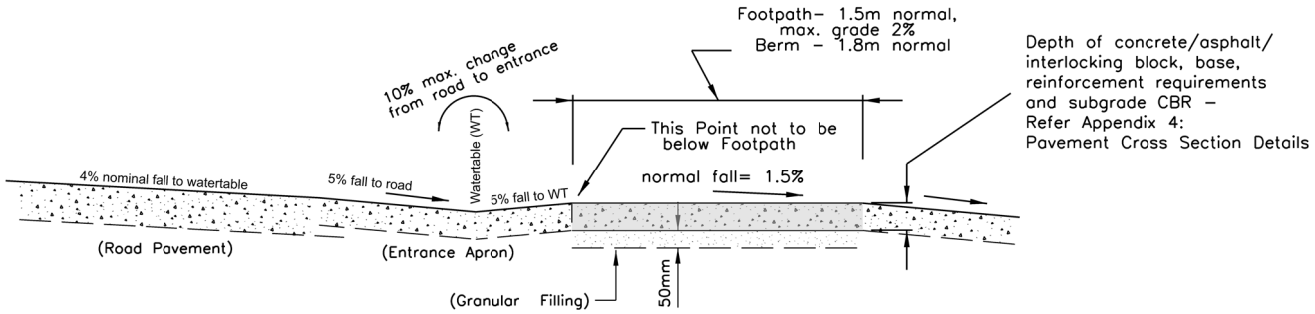


RISING TO ROAD

Urban Residential



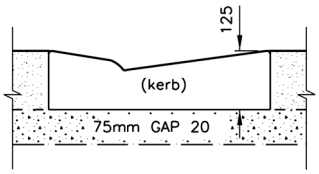
SECTION- THROUGH VEHICLE CROSSING (WATERTABLE, NO KERB)



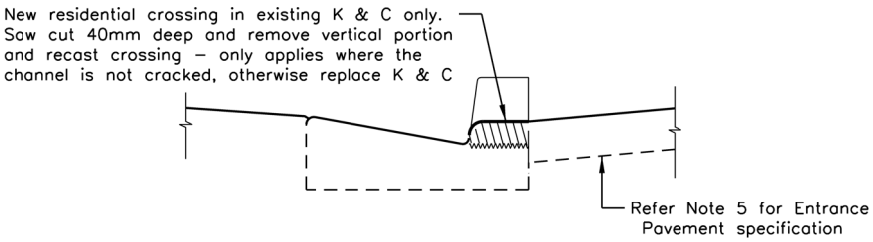
SECTION- THROUGH VEHICLE CROSSING (WATERTABLE, NO KERB)

Appendix 4: Urban Residential Pavement Details

PAVEMENT CONSTRUCTION DETAILS



Pavement Depth = 165mm
CBR > 10

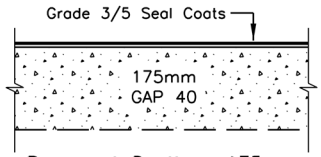
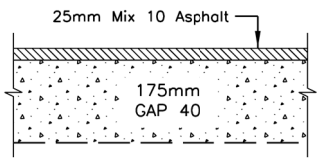
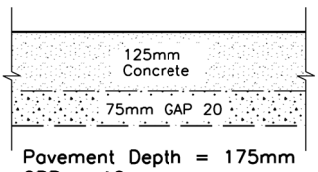
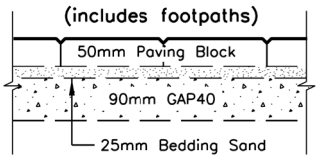


STANDARD RESIDENTIAL CROSSING
SERVICING LESS THAN SIX PROPERTIES

NOTES:

1. Concrete – 28 Days in place min. strength 20MPa
2. Reinforcing – D12 bars, R6 stirrups @ 600 crs
3. Reinforcement Beam to be extended 1.5m either side of cutdown.
4. Side & Top Cover– 50mm min., Bottom Cover– 75mm min.
6. Refer to Sheet "Appendix 4: Urban Sight Distances, and Pavement Details– Footpaths, Pavement, and Vehicle Crossings" for Pavement Specification.

PAVEMENT CONSTRUCTION DETAILS (STANDARD RESIDENTIAL- Up to Five Property Units)

CHIPSEAL SURFACING	ASPHALT SURFACING	CONCRETE SURFACING	INTERLOCKING PAVERS
 Pavement Depth = 175mm CBR > 10	 Pavement Depth = 200mm CBR > 10	 Pavement Depth = 175mm CBR > 10 GAP Layer may be omitted if Layer of 665 Mesh is used in Concrete	 Pavement Depth = 165mm CBR > 10

Appendix 4:
Vehicle Entranceways- Notes

1.0 GENERAL

1.1 ALL WORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE FOLLOWING NOTES AND TO THE SATISFACTION OF THE ENGINEERING MANAGER.
Additional requirements to those provided for a particular location may be required and will be determined on site by the Engineering Manager.

1.2 The Contractor shall be responsible for traffic control while undertaking work within the road reserve.
All signage to be in accordance with Waka Kotahi Transit New Zealand's NZGTTM for vehicle counts over 500vpd; and COPTTM's Local Road Supplement (LRS) for vehicle counts up to 500vpd.

1.3 The Contractor shall be responsible for the cost of repairs to any utility services damaged during construction. Any damage shall be rectified to the satisfaction of that Utility Owner.

1.4 A Residential Vehicle Entrance is considered adequate to accomodate a 5m long car turning into a property at the minimum radius of 7.5m.

1.5 The centreline of the entrance formation meeting the carriageway shall not exceed angles over 30 degrees from the perpendicular to the road centreline.

2.0 LOCATION

2.1 Each entrance shall be located to provide clear sight distance in both directions in accordance with Appendix 5: Entrance Sight Visibility and Separation Distances.

2.2 Separation distances shall be as indicated in ('Appendix 5: Entrance Sight Visibility and Separation Distances'.

3.0 CULVERT

3.1 If an entrance crosses a public drain the Contractor shall notify Otorohanga District Council who will advise the correct culvert diameter.

3.2 Where an entrance crosses a watertable or small drain (less than 2m wide by 1m deep), a 300mm diameter minimum Reinforced Concrete Rubber Ring Joint (R.C.R.R.J.) class X pipe shall be installed.

3.3 Any unsuitable bedding material including vegetation, topsoil and peat shall be removed and replaced in accordance with the pipe manufacturer's specifications.

3.4 All culverts shall be laid straight at a constant grade, a minimum of 1.5m from the edge of carriageway.
The socket end shall always be uphill.

4.0 SUBBASE

4.1 A minimum CBR of 5% is required before placement of sub-base material. If this CBR cannot be achieved, Council's roading staff can advise how to proceed.
This may involve an additional depth of pavement construction, or the installation of geosynthetics.

4.2 Pit sand, brown rock or similar material shall be placed, trimmed and compacted to provide 150mm depth of subbase if required. The subbase shall be placed from the edge of the carriageway to the gate or cattlestop.

5.0 BASECOURSE

5.1 GAP40 basecourse metal complying with TNZ: M4 & M3 notes, shall be placed, trimmed and compacted to the depth of basecourse as specified in the Table 'PAVEMENT CONSTRUCTION DETAILS' for the total area shown in the Entrance Diagram applicable.

5.2 Basecourse material shall be trimmed to provide a crown in the centre of the entrance to ensure adequate surface drainage. The crossfall shall be between -3% to -5% from the crown.

6.0 SURFACING

6.1 Each entrance off a sealed road shall be surfaced with a two coat bitumen/chip seal as the minimum surfacing standard. The surfacing shall be constructed with 180/200 grade bitumen and Grade 3 and 5 chip.
Area of seal is to comply with the Entrance Diagram applicable.

6.2 If the entrance is off a metal surfaced road, NO additional surfacing over the basecourse material will be required. (sealing is not required)

6.3 Rural entrances shall not be constructed from concrete fbecause of added expense for Council when carrying out maintenace activities.