## DRAWING SET INDEX

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NOTE: 1. This is an indicative cross section to assist designs. Actual cross sectional composition is to be agreed with AT.
2. The road cross section can be wider than shown if rear berms, batters or additional land for road purposes is required.
3. For minimum road rewservce dimension refer to ATCoP Chapter 3, Section 3.8.
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3. For minimum road rewsve dimension refer to ATCoP Chapter 3, Section 3.8.
NOTES:

1. Berms may be widened to accommodate landscaping or other special features, subject to specific design and approval.
2. Any services laid under road carriageway shall have 900mm cover (Minimum)
TYPES A (symmetrical) & B

N.T.S.

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FOR 8m RIGID TRUCK
FOR 11m RIGID TRUCK & SEMI-TRAILER.

TYPE C

N.T.S.

FOR 8m RIGID TRUCK ONLY

TYPE D

N.T.S.

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FOR 8m RIGID TRUCK
FOR 11m RIGID TRUCK
FOR SEMI-TRAILER.

NOTES:

1. Variations to the above layouts may be permitted providing designs meet Land Transport Safety Authority tracking curves for: 8m rigid truck, 11m rigid truck, semi-trailer as appropriate. The 8m rigid truck will generally be acceptable for \( W < 8 \) m.

2. Design drawings must clearly indicate the tracking path of the design vehicle.

3. The Layout must satisfy the relevant tracking curve.

4. No Stopping At Any Time road-markings must be provided at all turning heads.
CONVENTIONAL TRAFFIC
ISLAND LAYOUT

NOTES:
1. Kerb blocks & insitu concrete – 20 MPa
2. Slip form concrete – 20MPa
3. All RG17 signs on traffic islands to be installed with 4" rotation.

ISLAND SURFACING
McCALLUM EXPOSED AGGREGATE CONCRETE.

180mm THICK 20MPa UNREINFORCED EXPOSED McCALLUM CHIP CONCRETE WITH 3kg/m3 RED OXIDE

PRECAST MOUNTABLE KERB & STUB, PAINT KERBS WITH 2 COATS OF WHITE REFLECTORISED PAINT

REINSTATE ROAD PAVEMENT TO MATCH WITH EXISTING
SAWCUT EXISTING SEAL AND SEAL JOINT

EXISTING ROAD SURFACE

150mm GNZ M/4 AP40

SECTION A–A
N.T.S.
NOTES

1. Concrete grades:

2. Bedding:
   Kerbing must be laid on 300mm. min. GAP65 subbase in roads and 100mm GAP40 in footpaths (where subgrade CBR>5). If the subgrade CBR<5 then roads and footpaths must be undercut and backfilled with an approved filling material.

3. Jointing:
   Precast kerbs to be neatly pointed with 10mm (min) cement mortar. Extruded kerbs cracking control joints formed or saw cut to a minimum depth of 30mm at max. 3.0m intervals. If footpath is adjacent to kerb the saw cuts must coincide with the concrete footpath joints. Joints between bluestone kerb blocks must be approximately 20mm wide (measured at the top and front faces) with neat square jointing 2 to 4 mm proud. Crack control joints must be located either side of vehicle crossings.

4. Basalt kerb blocks must not extend across vehicle or pram crossings.

5. All chamfers to be 20mm
NOTES  KERB & DISH CHANNEL ONLY (EXTRUDED)

1. Jointing
   Precast kerb neatly pointed with 10mm min. cement mortar. Extruded kerbs cracking control joints formed or saw cut to a minimum depth of 30mm at max. 3.00m. intervals to coincide with concrete footpath joints (where the kerb is adjacent to the footpath). Crock control joints between bluestone kerb blocks shall be approximately 20mm wide (measured at the top and front faces) with neat square jointing 2 to 4 mm proud. Joints must located either side of vehicle crossings.

2. Bedding
   Kerbing must be laid on 300mm. min. GAP65 subbase in roads and 100mm GAP40 in footpaths (where subgrade CBR>5).
   If the subgrade CBR<5 then roads and footpaths must be undercut and backfilled with appropriate backfill material.

3. Concrete Grades
   Precast kerb blocks 20 Mpa. In-Situ channel and haunching 20 Mpa. Extruded concrete 20 Mpa.

4. All chamfers 20mm
NOTES

1. Concrete grades:

2. Bedding:
   Kerbing must be laid on 300mm. min. GAP95 subbase in roads and 100mm GAP40 in footpaths (where subgrade CBR>5). If the subgrade CBR<5 then roads and footpaths must be undercut and backfilled with an approved filling material.

3. Jointing:
   Precast kerb neatly pointed with 10mm (min) cement mortar. Extruded kerbs cracking control joints formed or saw cut to a minimum depth of 20mm at max. 3.00m intervals. If footpath is adjacent to kerb the saw cuts must coincide with the concrete footpath joints. Joints between bluestone kerb blocks must be approximately 20mm wide (measured at the top and front faces) with neat square jointing 2 to 4 mm proud. Crack control joints must located either side of vehicle crossings.

4. Basalt kerb blocks must not extend across vehicle or pram crossings.
V-DISH CHANNEL FOR PARKING AREA

V-DISH CHANNEL UNDER TRAFFIC

V-DISH CHANNEL INSITU NOT UNDER TRAFFIC

NOTES

1. Concrete Grades:
   - In situ concrete 20MPa
   - Extruded concrete 20MPa

2. Bedding:
   - To consist of 300mm (min) GAP65 subbase in roads and 100mm GAP40 in footpaths, (where CBR>5).

3. Jointing:
   - Extruded channels cracking control joints formed or saw cut to a minimum depth of 30mm at max 3.00m intervals for unreinforced channels and 3.00m (max) for reinforced channels/nib. If there is a footpath adjacent to the channel/nib the sawcut must coincide with the concrete footpath joint.
30mm deep Dish

Carriageway

Parking Bay

Fall

200

100

20mm Chamfer

3 No. 10mmØ Reinforcing Bars with 60mm Cover

600

STANDARD CONCRETE ROUND DISH CHANNEL

2000 wide concrete footpath

Form dish with length of 100 dia. piping

180

ROUND DISH CHANNEL FOR LOW LEVEL PATH
Notes:

1. All concrete, except kerb mix to be ordinary grade 20MPa and constructed in accordance with NZS 3109 with a broom finish. Sawcut expansion joints at 3m centres.
Drawing set for Chapter 7 - Road Layout and Geometric Design

**TYPICAL SECTION FOR KERB & CHANNEL AND KERB ONLY REPLACEMENT**

**NOTES**

1. Increase depth to match adjacent Pavement depth where required.
3. For Type 1 Kerb and Channel refer Auckland Transport Standard Plan No. GD007.
4. For Kerb only replacement some trimming of channel edge may be required and channel / kerb joint grouted to provide a water tight connection.
5. Footpaths to be constructed in accordance with Auckland Transport Standard Drawing Set FP000.
6. Increase width where required to achieve positive fall to the channel.
7. Positive fall to the kerb and channel must be achieved unless otherwise approved by the relevant AT Engineer.

**TYPICAL SECTION FOR VEHICLE CROSSING REPLACEMENT**

1. For Type 4 Vehicle Crossing Channel details refer to Auckland Transport Standard Plan No. GD008
NOTES

1. The subsoil drain is to connect to a downstream street catchpit above the soffit level of the outlet pipe. Subsoil depth can be adjusted to meet this criteria.
2. Increase depth to match adjacent pavement depth where required.
3. Increase width where required to achieve positive fall to the channel.
4. Positive fall to the kerb and channel must be achieved unless otherwise approved by the relevant AT Engineer.
NOTES

1. 20MPa Concrete with 4Kg/m3 of Brown Oxide.

2. Splitter islands or pedestrian refuge islands shall be cast 50mm below finished road surface. Any over-excavation shall be backfilled, compacted and resurfaced to match adjacent surface.

3. Concrete apron to roundabouts. Where roundabout will not be infilled with concrete, a concrete apron 1m wide must be constructed behind the kerb.

4. Where required concrete infill to islands/roundabouts shall be 100mm thick, 20MPa concrete with exposed aggregate.
Notes:

1. All dimensions are in millimetres unless noted otherwise.
2. All concrete to be 20 Mpa and constructed in accordance with NZS 3109 with a broom finish.
3. Saw cut expansion joints at 4m centres maximum each way in addition to saw cuts shown on dwg.
4. All work must comply with the NZTA's 'CoPTTM' (code of practice for temporary traffic management).
5. Construct in same material as surrounding footpath.
Notes:

1. All dimensions are in millimetres unless noted otherwise.
2. All concrete to be 20 Mpa and constructed in accordance with NZS 3109 with a broom finish.
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Drawing set for Chapter 7 - Road Layout and Geometric Design

Property Access

Area to be sealed
(Preferred)

Property Boundary

3.0 - 6.0m

6.0m

Edge of Seal

Roadway

Edge of Seal

Drawings subject to change due to boundary changes to match AC Unitary Plan
NOTES ON USE OF TEMPLATE

1. Heavily laden cars or cars with less clearance may still ground on a crossing designed in accordance with this template.

2. The designer should check that stormwater will remain in the channel and not run down the driveway. A freeboard of 200mm (i.e., height above channel) is required to contain stormwater within the road unless it can be shown to the satisfaction of the Transport Asset Manager that such a condition is impractical and stormwater will not enter driveways as a result.

STANDARD TEMPLATE FOR DESIGN OF VEHICLE CROSSING

TYPICAL INTERNAL DRIVEWAY PROFILE FOR RESIDENTIAL PROPERTIES
B85 Vehicle (Realistic min radius) (2004)
Overall Length 4.910m
Overall Width 1.870m
Overall Body Height 1.421m
Min Body Ground Clearance 0.159m
Track Width 1.770m
Lock to Lock Time 4.00 sec
Curb to Curb Turning Radius 5.750m