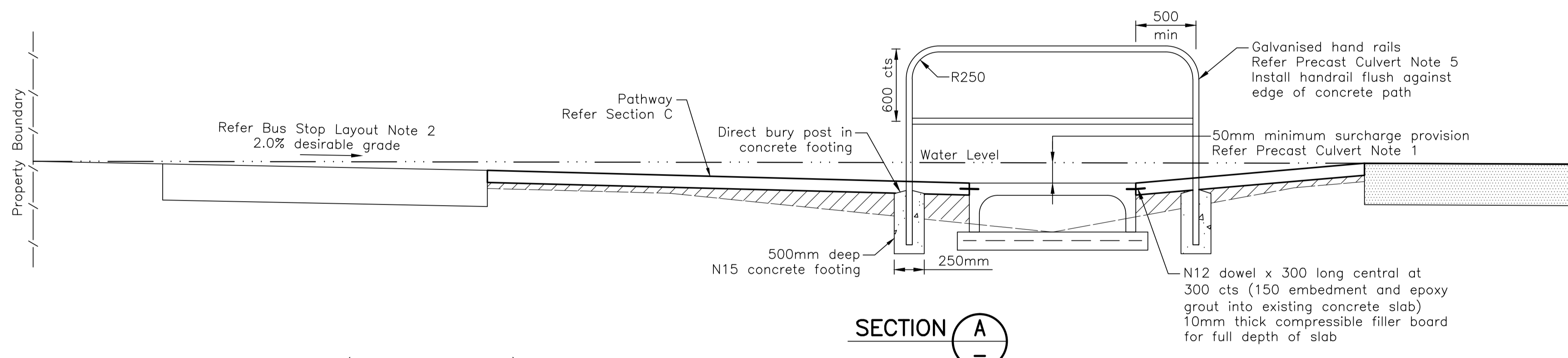
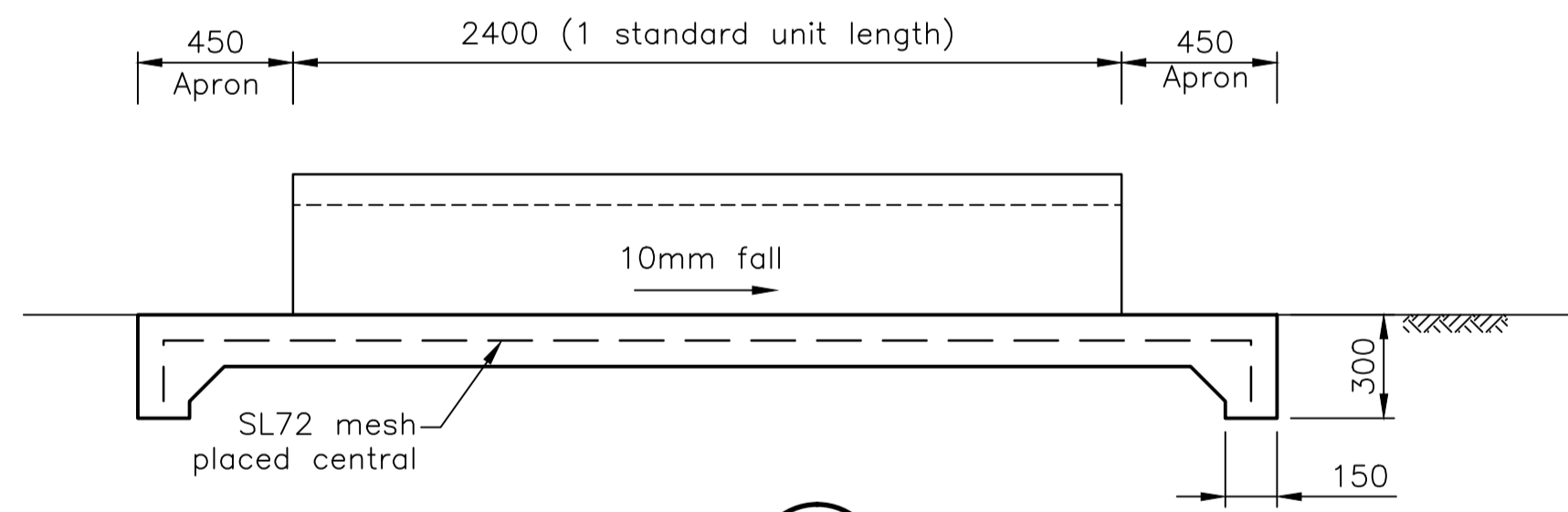


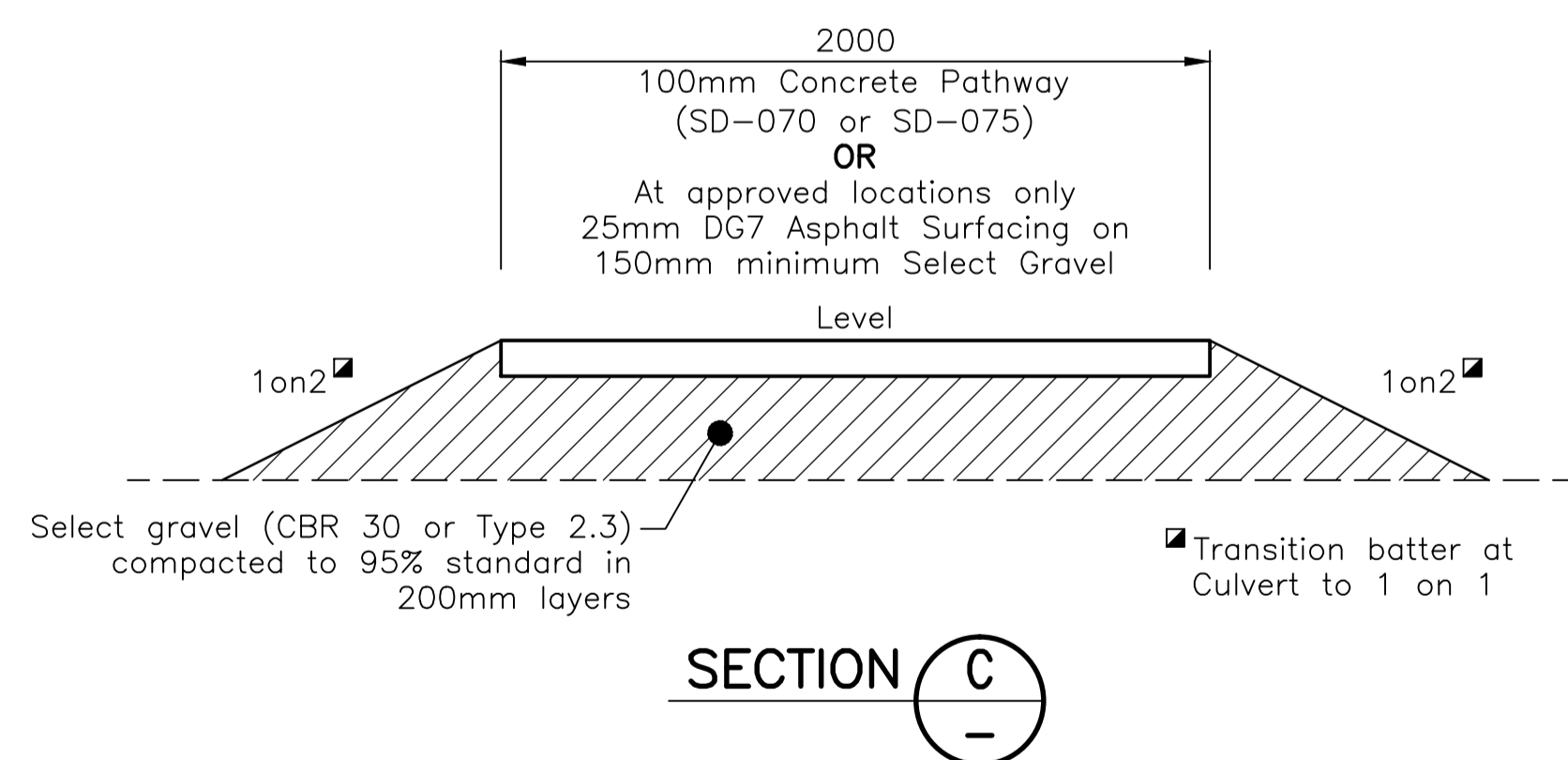
PLAN



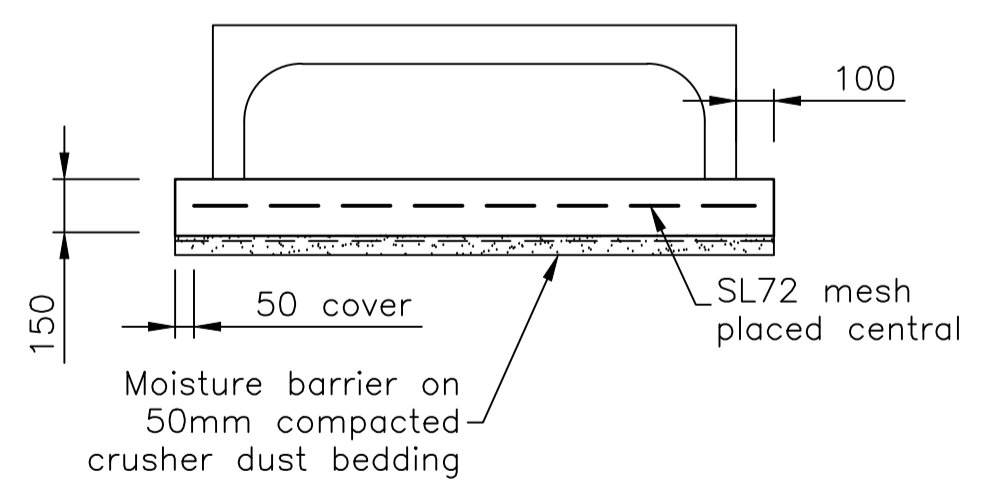
SECTION A



SECTION B



SECTION C



CULVERT DETAIL

1200x300 RCBC desirable  
1200x225 RCBC minimum

**NOTES**

**GENERAL**

- All dimensions are in millimetres, unless noted otherwise.
- Do not scale these drawings. Use figured dimensions.
- The Contractor shall check, verify on site and be responsible for the correctness of all dimensions shown on the drawings and discrepancies shall be reported immediately to the Superintendent before any work proceeds.
- These drawings shall be read in conjunction with all other drawings and specifications and with such other written instructions as may be issued during the course of construction. All discrepancies shall be reported immediately for decision before proceeding with the project.
- All workmanship and materials shall be in accordance with the requirements of the Townsville City Council Design Specifications and Construction Standards, Standards Australia Codes and the by-laws and ordinances of the relevant authorities.
- During construction any structure and neighbouring structures shall be maintained in a stable condition, ensuring no parts are overstressed.
- It is the contractors responsibility to ensure that the project is carried out in accordance with the drawings and specifications.

**PRECAST CULVERT**

- The available depth of the table drain must be sufficient to ensure a 50mm minimum clearance below the level at the property boundary or the edge of the bitumen roadway (whichever is lower) to the top of the access. This clearance must be achieved to allow water flowing in the drain to surcharge over the access before entering onto the roadway or the adjacent property.
- The top surface of the Precast Box Culvert may be level with the finished surface of the access.
- Reinforced Concrete Pipes WILL NOT be considered unless the drain is AT LEAST 1.2m deep.
- An alternative size culvert may be used. Culverts (either Box or Pipes) shall be designed for a ten (10) year Average Recurrence Interval storm allowing for surcharge over the access. The surcharge shall not enter onto the roadway or the adjacent property. These designs are to be certified by the Engineer (RPEQ) and are to be supplied to Council for approval. Details require review for aggressive environments.
- Install 1.2m high 50NB galvanised pipe hand rails for culverts > 250mm high. Hand rails are to extend minimum 500mm on either side of culvert.

**CONCRETE**

- All concrete N32 unless noted otherwise.
- Concrete cover to reinforcement shall be 40mm unless noted otherwise.
- All concrete must be cured in accordance with the following:
  - AS3600
  - Aliphatic alcohol must be used. The aliphatic alcohol should be applied after screeding and bull floating operations.
  - No water should be added to concrete.
  - An impermeable membrane should be applied. All joints in membrane are to be taped and the edges secured to prevent the ingress of air.
  - Minimum curing period shall be not less than 7 days for strength grade N32 and not less than 4 days for high early strength concrete.
- Exposed edges of formed concrete elements shall have a 20mm chamfer unless noted otherwise.
- All concrete shall be mechanically vibrated. Hand held vibrators must be held upright. Concrete must not be spread using vibrator.

**BUS STOP LAYOUT**

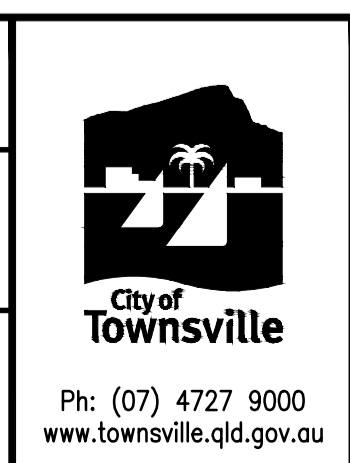
- Clear zone requirements to be maintained.
- Bus Stop Concrete Slab crossfall
  - 1.0% minimum
  - 2.0% desirable
  - 2.5% maximum

No.	DATE	DESCRIPTION	AP'D
C	23/3/2015	RURAL LOCATIONS NOTES UNIFICATION	
B	17/06/2014	DRAWING REVIEWED	
A	07/09/2011	ORIGINAL ISSUE	
REVISIONS			

<p>NOTES :</p> <p>REFERENCE DRAWINGS</p> <p>SD-070 - CONCRETE PATHWAY REINFORCED CONCRETE (MESH) ALTERNATIVE</p> <p>SD-075 - CONCRETE PATHWAY REINFORCED CONCRETE (FIBRE) ALTERNATIVE</p> <p>SD-555 - BUS SETDOWN RURAL LOCATIONS LAYOUT DETAIL</p>
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Full Size A1
Not to scale

DRAWN: DESIGN OFFICE	CHECKED: WJP
Design Engineer Approved: Original signed by J EL-KHOURI	Date: 13/4/2015
Manager Approved: Original signed by M WILKINSON	Date: 16/4/2015



**BUS SETDOWN  
RURAL LOCATIONS  
TABLE DRAIN  
PRECAST CULVERT CROSSING**

<b>STANDARD DRAWING</b>
TRANSPORT
SD-560   C