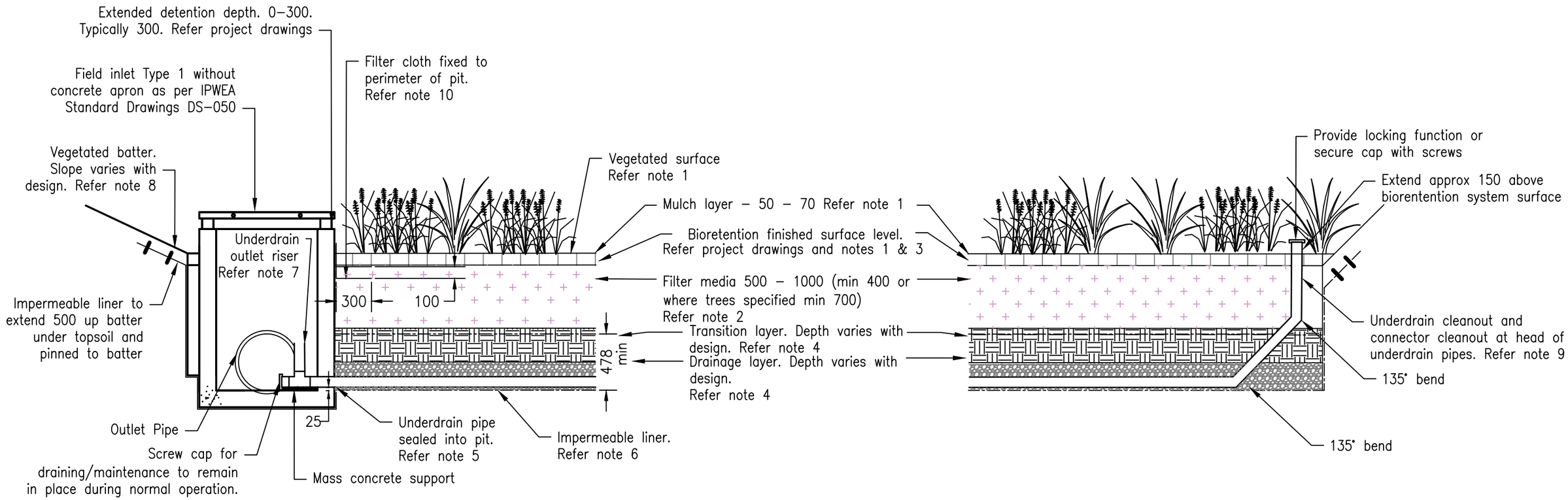

NOTES:

1. Bioretention system surface. Surface level is top of filter media. Surface to be mulched and planted as per project drawings and the 'Bioretention Technical Design Guidelines' (Water by Design).
2. Filter media specification shall be in accordance with the 'Adoption guidelines for Stormwater Biofiltration Systems (CRC for water sensitive cities) and the Bioretention Technical Design Guidelines (Water by Design). Bioretention hydraulic conductivity shall be in accordance with Practice Note 1: in situ Measurement of Hydraulic Conductivity' (FAWB). The number of samples to be tested shall be in accordance with the 'Construction and Establishment Guidelines – Swales, Bioretention Systems and Wetlands' (Water by Design).
3. Construction tolerances shall be in accordance with the 'Construction and Establishment Guidelines –Swales, Bioretention Systems and Wetlands' (Water by Design)
4. Transition layer and drainage layer depths vary with design. Depths and specification to be in accordance with project drawings and the 'Bioretention Technical Design Guidelines' (Water by Design)
5. Underdrain. Slotted rigid pipe laid flat. Refer to project drawings for diameter and pipe invert. Pipe should not be installed with a filter sock surrounding pipe. Underdrain pipes shall be sealed into pits using grout or other approved watertight seal.
6. Impermeable liner. Compacted clay or synthetic liner with permeability of no greater than 1×10^{-9}m/s. Impermeable liner to be sealed around all protrusions. Synthetic liners to be installed and sealed in accordance with manufacturers requirements. Impermeable liner as per project drawings and 'Bioretention Technical Design Guidelines' (Water by Design)
7. Underdrain outlet riser establishes max saturated zone water level. Underdrain outlet riser as per project drawings and 'Bioretention Technical Design Guidelines' (Water by Design)
8. Vegetated batter. Slope and planting to be in accordance with project drawings and 'Bioretention Technical Design Guidelines' (Water by Design).
9. Inspection/cleanout point. Vertical solid pipe section attached to the end of each underdrain in accordance with project drawings and the 'Bioretention Technical Design Guidelines'(Water by Design)
10. Filter cloth to be fixed to perimeter of pit to avoid runnelling of water between pit and soil interface. Begin filter cloth 100 above surface. Extend to 100 below surface. Continue 300 horizontally into filter media.
11. For general design and construction notes refer to DS–078
12. All dimensions in millimetres unless otherwise noted.

These drawings have been developed in consultation between the participating Councils.
BEFORE USE, the user shall confirm that the drawing has been adopted by the appropriate Council.

Rv.	DATE	REVISIONS
A	11/15	ORIGINAL ISSUE
	February, 2016	Original Issue

INSTITUTE OF PUBLIC WORKS ENGINEERING AUSTRALASIA

STANDARD DRAWINGS

BIORETENTION DRAINAGE PROFILE – TYPE 1
SATURATED ZONE – UNCONSTRAINED

DS–070

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Rv.