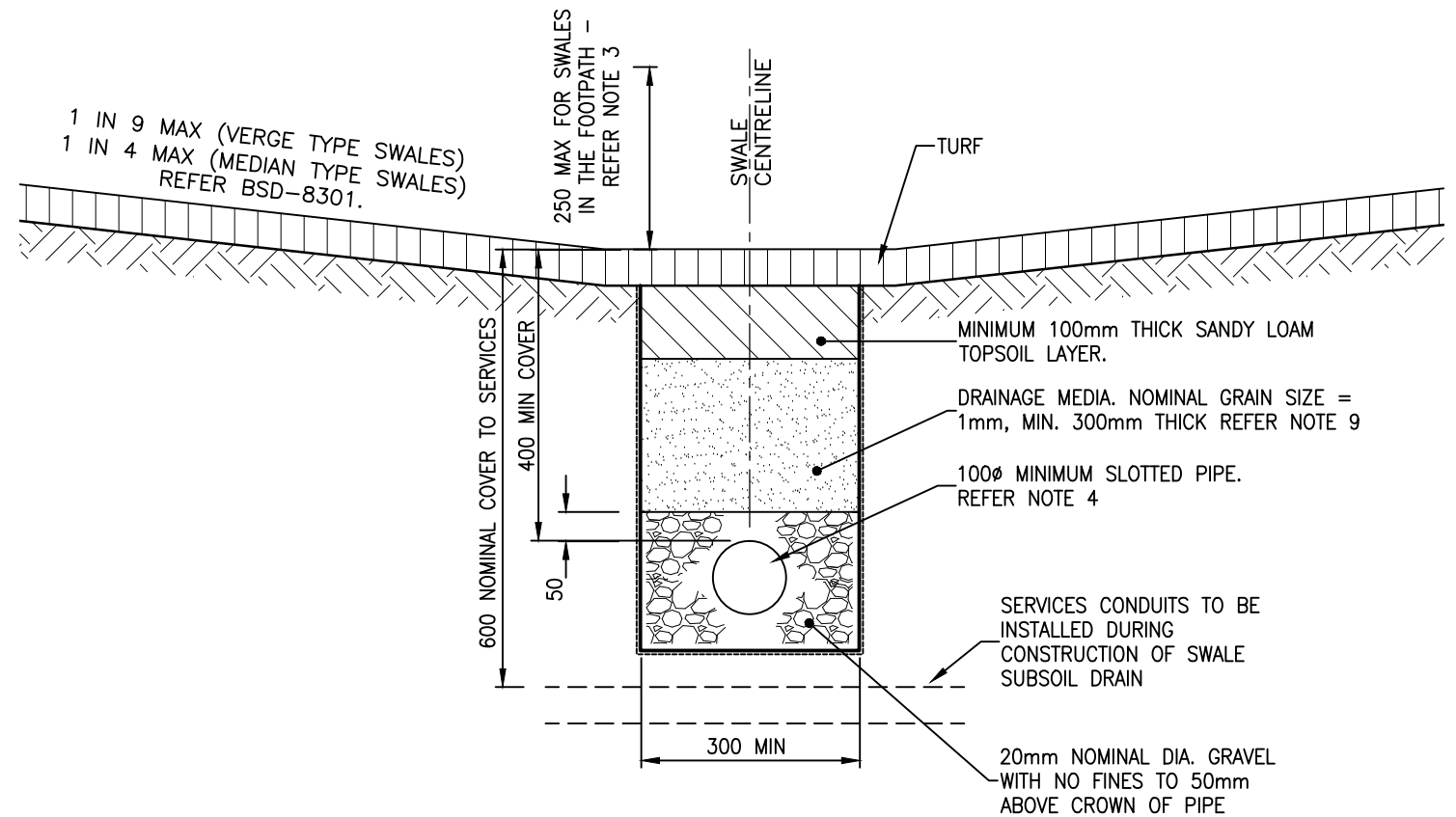


GRASS SWALE UNDERDRAIN – LONGITUDINAL SECTION

TURFED SWALE NOTES:

1. REFER TO BSD-8301 FOR GENERAL SWALE NOTES.
2. REFER TO BSD-8306 FOR FIELD INLET DETAILS.
3. THE DEPTH VELOCITY PRODUCT ($d_s \cdot V_{avg}$) IN THE SWALE SHALL BE LIMITED IN ACCORDANCE WITH QUDM SECTION 7.4.2 GENERAL REQUIREMENTS FOR PEDESTRIAN SAFETY (TYPICALLY 0.6m²/s, OR 0.4m²/s IN HIGH RISK AREAS). MAXIMUM DEPTH OF FLOW IN BOTH MINOR AND MAJOR EVENT SHALL BE LESS THAN 250mm FOR SWALES IN THE FOOTPATH.
4. UNDERDRAIN: SLOTTED RIGID PIPE (HDPE, UPVC OR SIMILAR TO AS 2439.1) OR APPROVED EQUIVALENT, 0.5% MINIMUM GRADE. DIAMETER TYPICALLY 100 TO 150mm. PIPE JOINS SHALL BE SEALED INTO PITS USING GROUTS OR OTHER APPROVED WATERTIGHT SEAL. 50mm DRAINAGE LAYER (FINE AGGREGATE) COVER OVER 2-3mm SLOTTED PIPE. SWALES FRONTING PARKS MAY NOT REQUIRE AN UNDERDRAIN AND SHALL BE ASSESSED ON A SITE BY SITE BASIS.
5. MINIMUM COVER OF 450mm TO UNDERDRAIN PIPE.
6. CLEANOUT: GRASS SWALE CLEANOUT ACCESS TO HAVE BOLTED TRAP SCREW CAP WITH 350x350x150 CONCRETE SURROUND FINISHED FLUSH WITH GROUND FINISHED SURFACE.
7. FILTER CLOTH: NON-WOVEN GEOTEXTILE. FILTER CLOTH NOT TO BE PLACED BETWEEN ANY FILTER LAYERS. IMPERVIOUS LINER MAY BE REQUIRED ADJACENT TO ROADS AND MAY ALSO BE REQUIRED SUBJECT TO SOIL TESTING REQUIREMENTS IN ACCORDANCE WITH THE WATER SENSITIVE URBAN DESIGN TECHNICAL GUIDELINES (WATER BY DESIGN).
8. TREE PLANTING AS PER BSD-9001.
9. DRAINAGE MEDIA TO BE COMPACTED CLEAN SAND WITH LITTLE OR NO FINES (USCS CLASSIFICATIONS SW AND SP).
10. FOR BIORETENTION SWALE UNDER-DRAIN TYPICAL DETAILS REFER TO BSD-8307.



GRASS SWALE UNDERDRAIN – SECTION

DESIGN REVIEWED & CERTIFIED FOR ISSUE

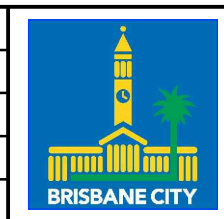
NAME: MARK R. GIBSON RPEQ: 6722
SIGNATURE: SIGNATURE ON ORIGINAL DATE: 03/04/14

VERIFY LOCATION OF SERVICES PRIOR TO EXCAVATION.

ISSUE	AMENDMENT	DRAWN DATE	CHK'D DATE	APPR'D DATE
B	NOTES UPDATED	Feb '15	Feb '15	Feb '15
A	ORIGINAL ISSUE	Apr '14	Apr '14	Apr '14

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DATED 14/04/14
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STRATEGIC ASSET MANAGEMENT
DESIGN APPROVED
PETER KURAS SIGNATURE ON ORIGINAL
DATED APRIL '14
PRINCIPAL PROGRAM OFFICER
NATURAL ENVIRONMENT WATER & SUSTAINABILITY

DESIGN	DATE
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SUPERSEDES UMS-153	



BRISBANE CITY COUNCIL STANDARD DRAWING

GRASS SWALE – UNDERDRAIN DETAILS

SCALE: NOT TO SCALE
DWG No. **BSD-8305**
ORIGINAL SIZE: A3 REVISION: B