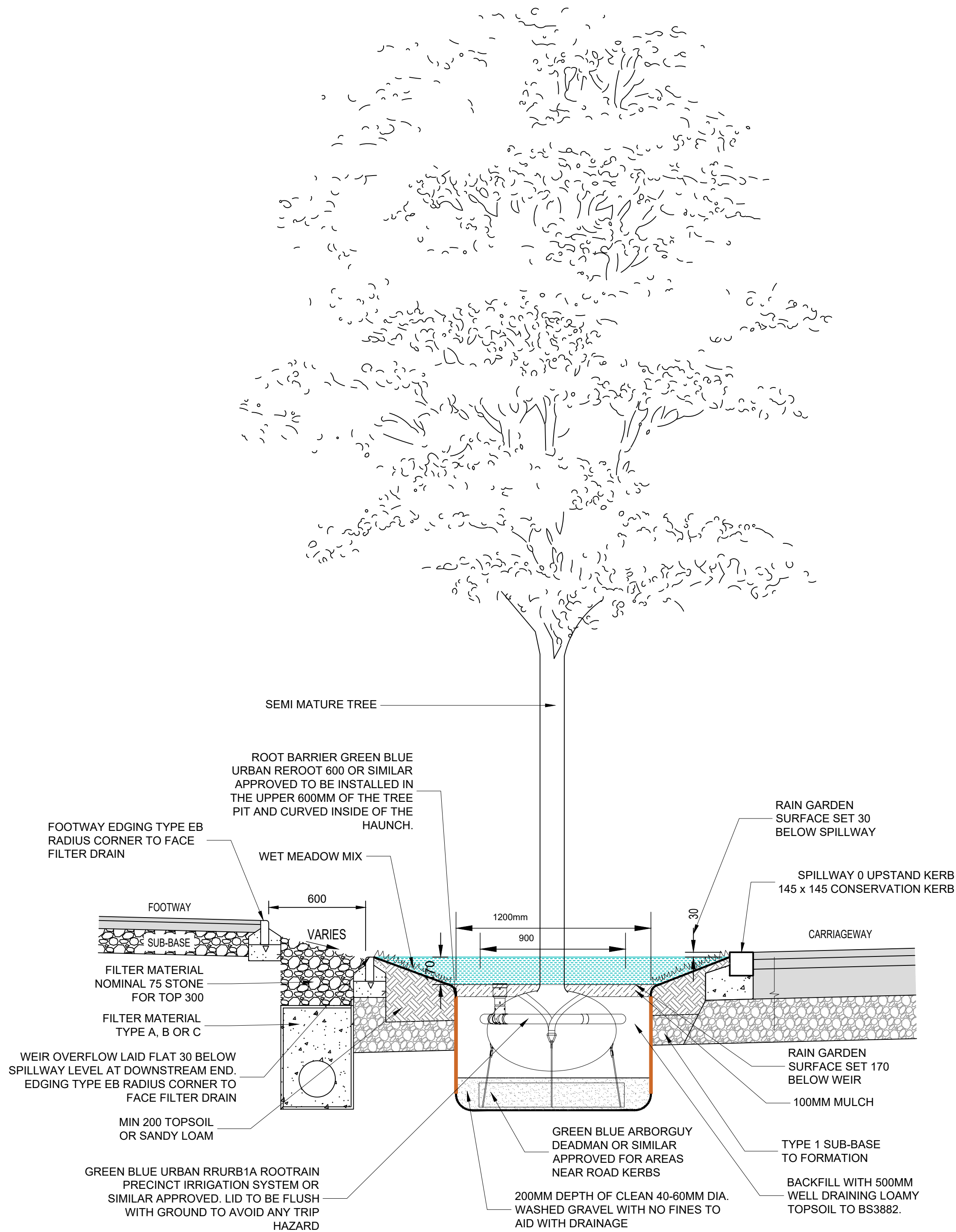


File name: S:\PROJECTS\2018\1807\BIM\01-IP\DRAWINGS\ARCH\DRAWINGS\1\_3011-3011\3011.DWG, printed on 04 July 2024 14:18:27, by Jennifer Barclay



D03 General Tree Pit Detail - Semi-mature trees within rain garden  
3011 Scale 1:20

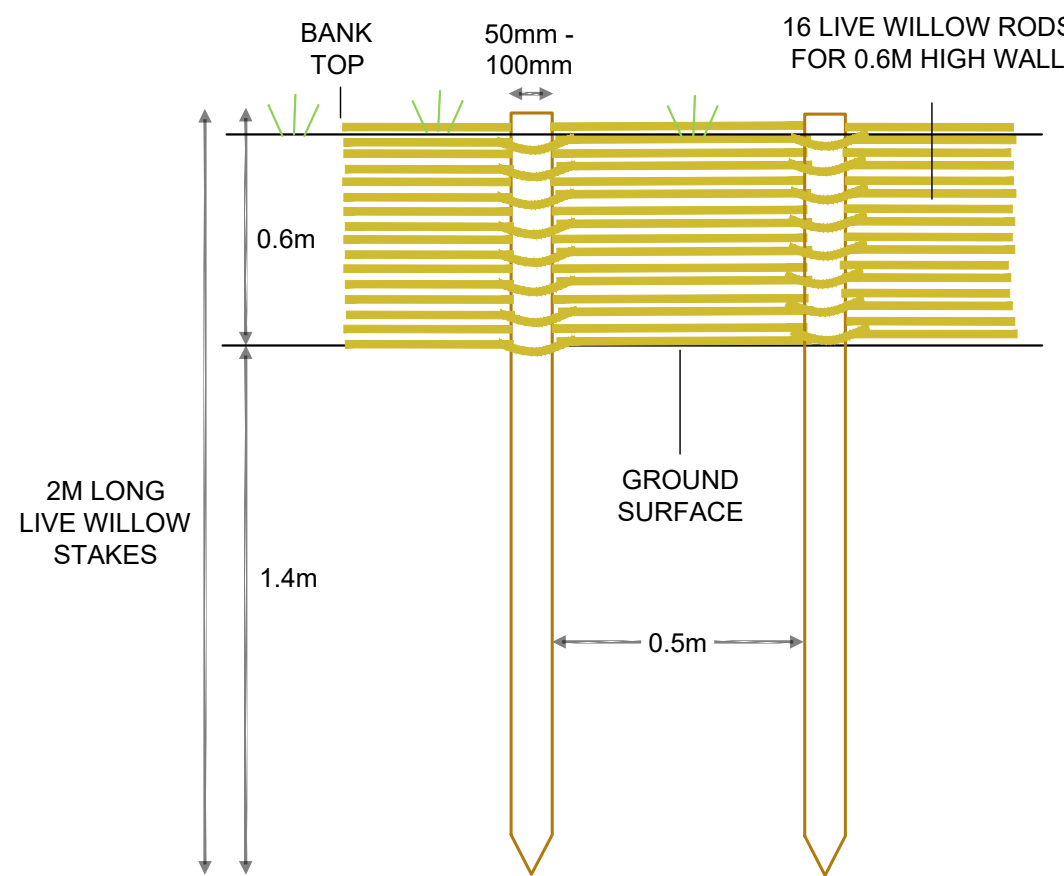
## Willow Spiling

Installation of Willow Spiling should follow guidance in SEPA 2020 section 7.1.

1. The exact scope and height of the spiling will be determined on site by the contractor in response to conditions in the brook. A single tier of spiling approximately 0.8m -1.0m high is expected to be sufficient. Three sections of spiling are proposed with a total length of 45 metres.
2. Freshly cut willow stakes 50mm to 100mm thick and 2m long should be hammered into the bank face at approximately 0.5m centres, including a line along the bank toe if it is exposed. Stakes should be hammered through blocks of slumped material if present in order to stabilize them. At least two-thirds of the stake's length should be driven into the ground to provide a strong anchor.
3. Willow rods should be woven between the live willow stakes. Rod length should be in excess of 2.5m long. 20 to 30 rods should be used for a typical 1.0m height of spiling.
4. Willow spiling is a live structure, and the willows may be expected to grow to 5m or more in height. There may be a need to cut the growth periodically to prevent undue shading of the watercourse.
5. Grazing animals such as sheep and cows will eat the young willow shoots, so if these were present on adjacent land, fencing of the river bank would be required to prevent damage to the willow structures.

Detail of willow Stakes and Rods installation (see below, from SEPA 2020, figure 7)

Reference:  
SEPA 2020: Sustainable River Bank Protection, Reducing River Bank Erosion, A Best Practice Guide For Farmers and Other Land Managers, Second Edition, August 2020.  
[https://www.sepa.org.uk/media/219450/bank\\_protection\\_guidance.pdf](https://www.sepa.org.uk/media/219450/bank_protection_guidance.pdf)



D04 General Willow Spiling Detail  
3011 Scale 1:20

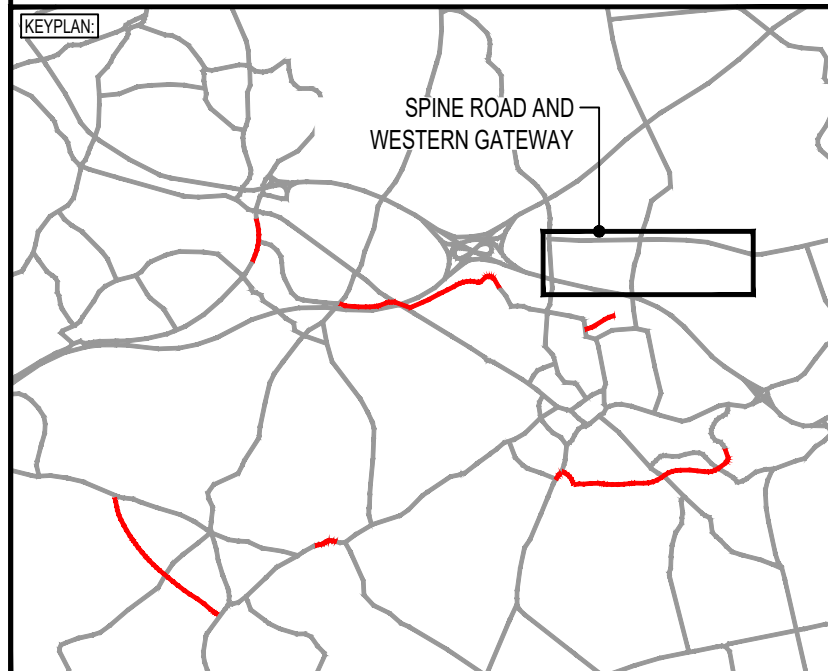
## BAT BOX SPECIFICATION

Schwegler 1FQ bat box (does not require cleaning).  
4 bat boxes should be fitted between 3m & 6m above ground level to Emm Brook Overbridge wingwalls, one bat box on each wingwall.  
20 - 25 years lifespan.



## DO NOT SCALE

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE IN METRES AOD UNLESS NOTED OTHERWISE.
3. REFER TO THE 500 SERIES FOR LEVEL INFORMATION



P04	26/01/2024	MH	REVISED FOR CONDITION DISCHARGE	DJF	JC
P03	02/06/2022	NZM	MATTERS OUTSTANDING WMHP-TG-SRWG1-RG-DM-0010	JC	JC
P02	01/04/2022	WM	SECOND ISSUE	JC	JC
REV	DATE	BY	DESCRIPTION	CHK	APP

DRAWING STATUS: **SUITABLE FOR REVIEW & COMMENT** **S3**

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PROJECT:

**WOKINGHAM MAJOR HIGHWAYS PROGRAMME**  
**SPINE ROAD AND WESTERN GATEWAY PHASE 1**

TITLE:

**HIGHWAYS**  
**CONSTRUCTION DETAILS**

SCALE @ A1:	1:20	CHECKED:	JC	APPROVED:	JC
PROJECT NO:	C118047	DESIGNED:	WM	DRAWN:	WM
DRAWING No:	WMHP-TG-SRWG1-DR-LS-3011	DATE:	May 22	REV:	P04