



**Lightmoor Urban Village
Telford**

Lightmoor Urban Village Telford



SUSTAINABLE URBAN DRAINAGE

Lightmoor Urban Village Telford

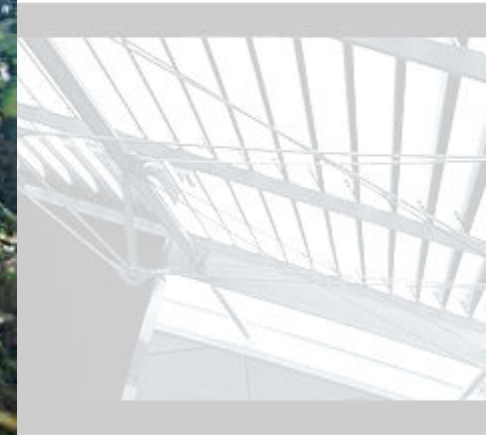


BOURNVILLE ARCHITECTS

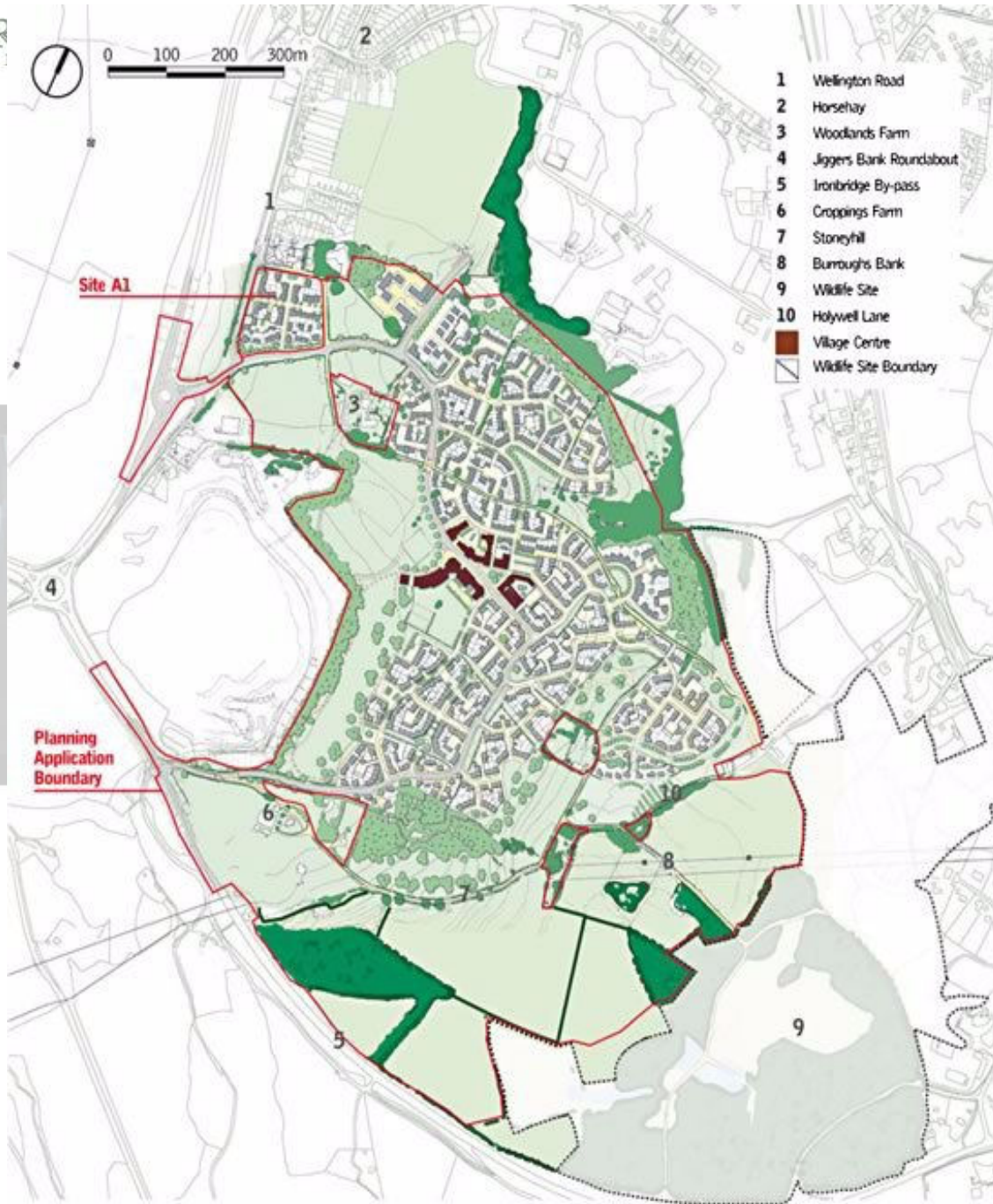
INTRODUCTION

- **History of Bournville Village Trust**
- **A New Village**
- **Joint Venture with English Partnerships**

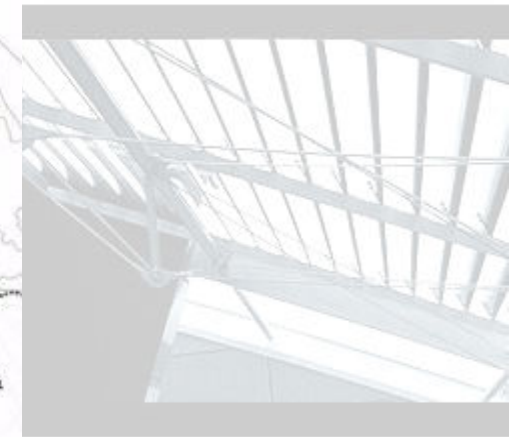
The Site



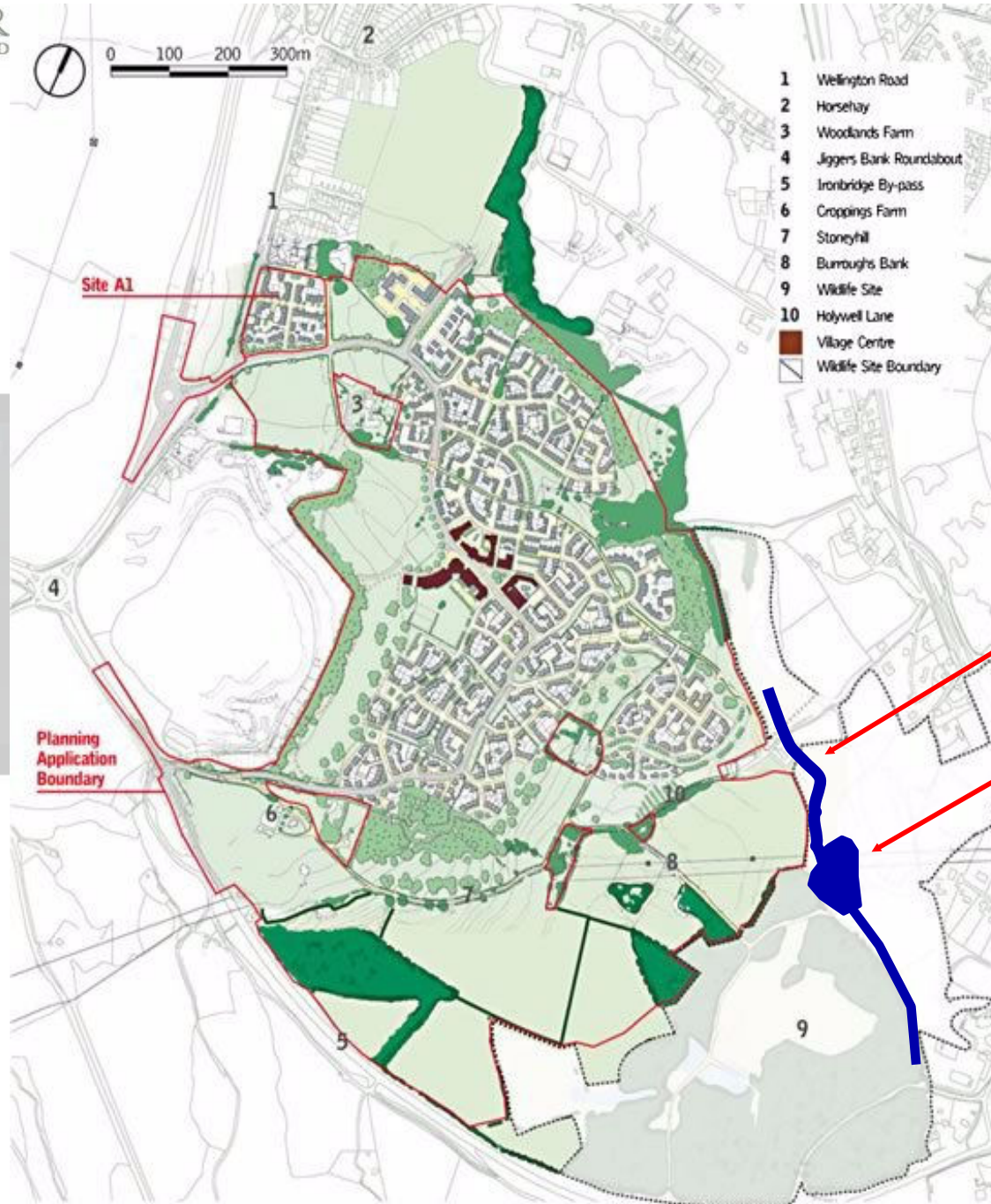
The Development



CampbellReith



The Traditional Option.....



CampbellReith

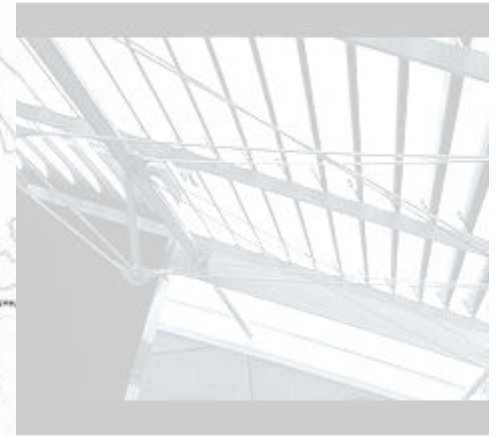
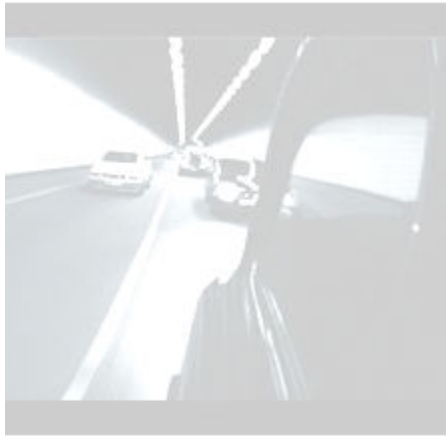
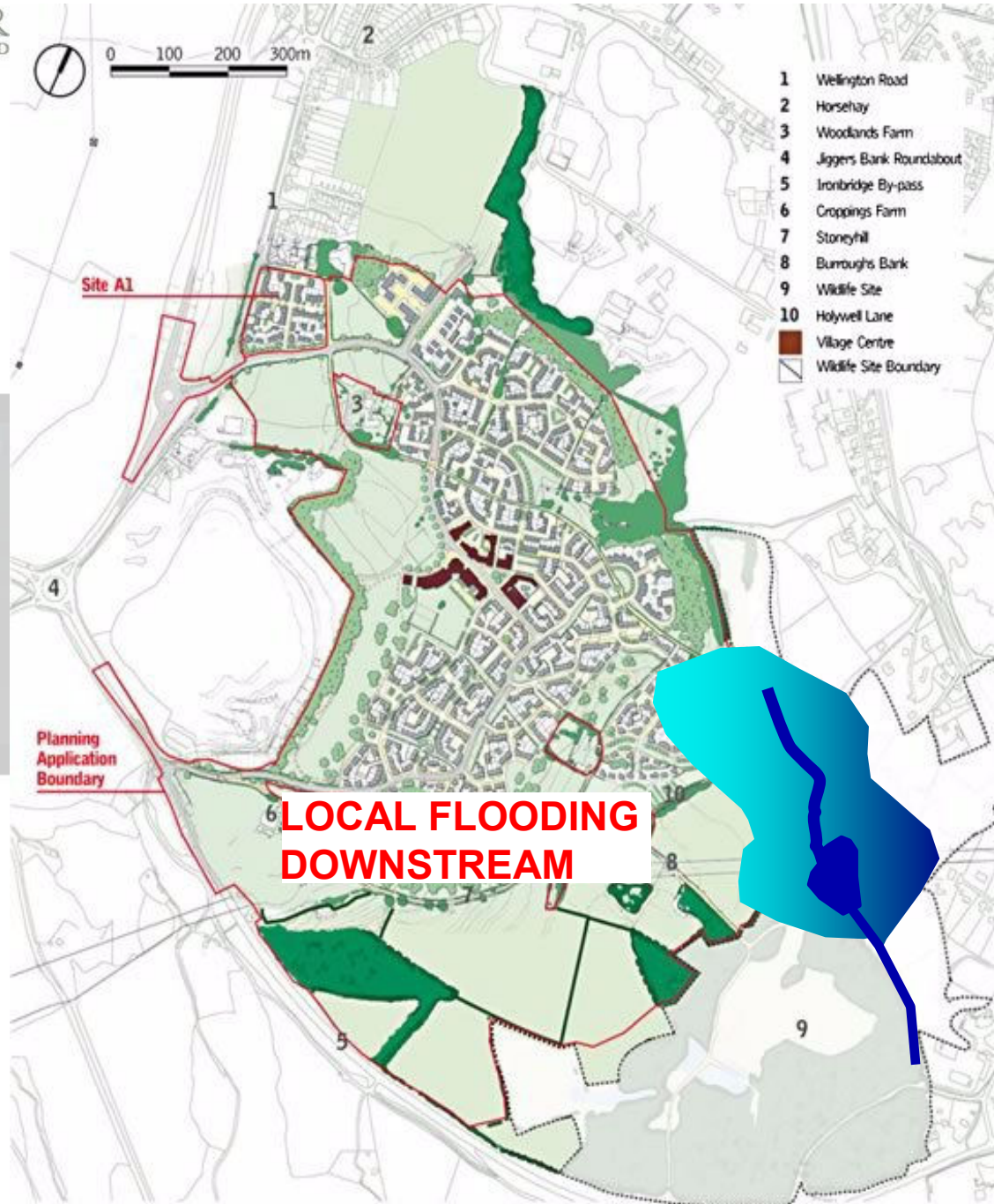


Lightmoor Stream

Existing Detention Pond

The Traditional Option.....

CampbellReith



The Traditional Option.....

A Traditional Piped Network would

- ✗ Increase the probability of downstream flooding.
- ✗ Reduce the amount of water entering the ground water table, possibly leading to substantial changes to the local hydrology.
- ✗ Increase the risk of pollution of the existing watercourses.

Sustainable Urban Drainage



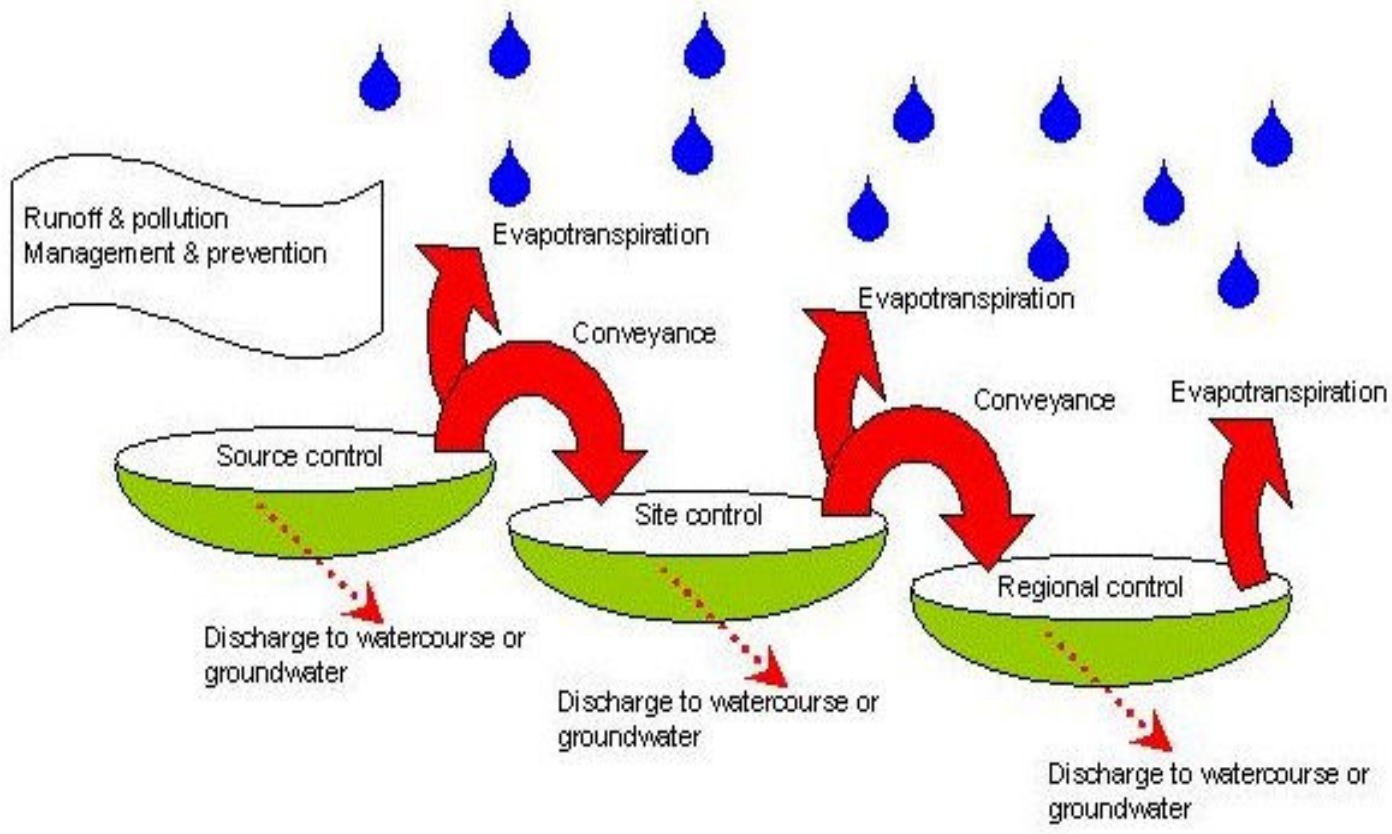
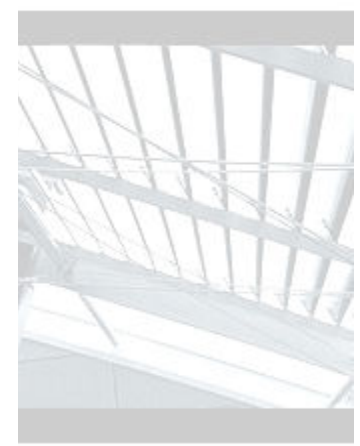
- 1 Wellington Road
 - 2 Horsley
 - 3 Woodlands Farm
 - 4 Jiggen Bank Roundabout
 - 5 Ironbridge By pass
 - 6 Croppins Farm
 - 7 Stonehill
 - 8 Burroughs Bank
 - 9 Walfs Site
 - 10 Holywell Lane
- Village Centre
■ Walfs Site Boundary

A sequence of management practices and control structures designed to drain surface water in a more ecological and environmental manner.



- 1 Wellington Road
- 2 Horsley
- 3 Woodlands Farm
- 4 Jiggen Bank Roundabout
- 5 Millage Bypass
- 6 Croppers Farm
- 7 Stonehill
- 8 Burnburn Bank

The Management Train



The FOUR elements of the Management Train

- ◆ **Runoff & Pollution Management and Prevention: Basic housekeeping tasks such as silt control, debris collection. Rainwater harvesting / reuse systems.**
- ◆ **Source Control: The collection of rainwater close to where it falls (e.g. porous pavements and house soakaways).**
- ◆ **Site Control: The collection of site wide drainage into one area where it can be passed through one large soakaway, pond or infiltration feature.**
- ◆ **Regional Control: The collection of a number of sites in one large detention pond or wetland.**



Stage 1: Runoff & Pollution Control



CampbellReith

- 1 Wellington Road
 - 2 Horseloy
 - 3 Woodlands Farm
 - 4
 - 5
 - 6 Croppings Farm
 - 7
 - 8
 - 9 Waste Site
- Waste Lane
Waste Centre
Waste Site Boundary

Within each of the development plots which are to be released, the developers are to make use of:

- ◆ **Water Butt's on Rainwater Downpipes.**
- ◆ **Rainwater Harvesting units.**

Control of pollution will be reinforced with regular highway maintenance servicing the gullies and manholes to remove silt and debris.



Planning Application Boundary



Stage 2: Source Control

CampbellReith

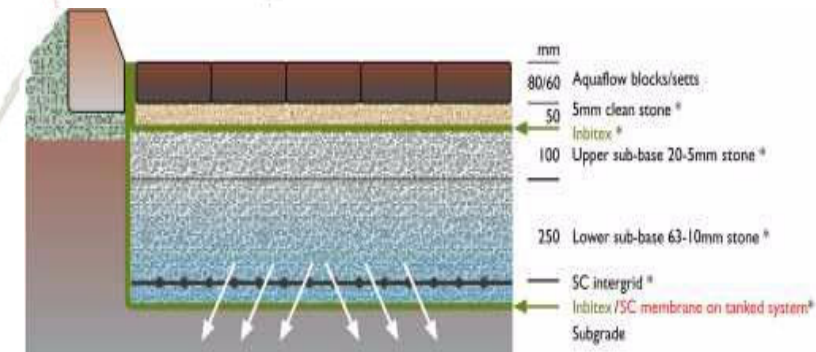
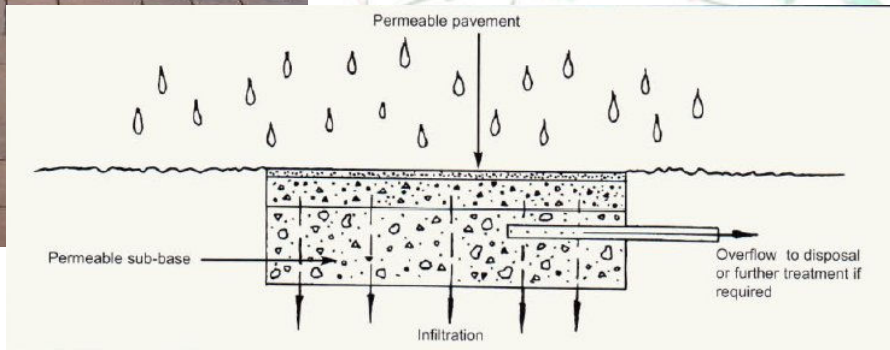
Stage 2 source control is achieved through:

◆ Soakaways serving rwp's.

◆ Porous paving on driveways, parking courts and external hard paved areas.

Porous paving adds pollution control to source control.

- 1 Wellington Road
 - 2 Horseloy
 - 3 Woodlands Farm
 - 4 Croppings Farm
 - 5 Stonehill
 - 6 Croppings Farm
 - 7 Stonehill
 - 8 Burnoughs Bank
 - 9 Waste Site
 - 10 Holywell Lane
- Village Centre
 Waste Site Boundary



Stage 3: Site Control

Campbell Reith

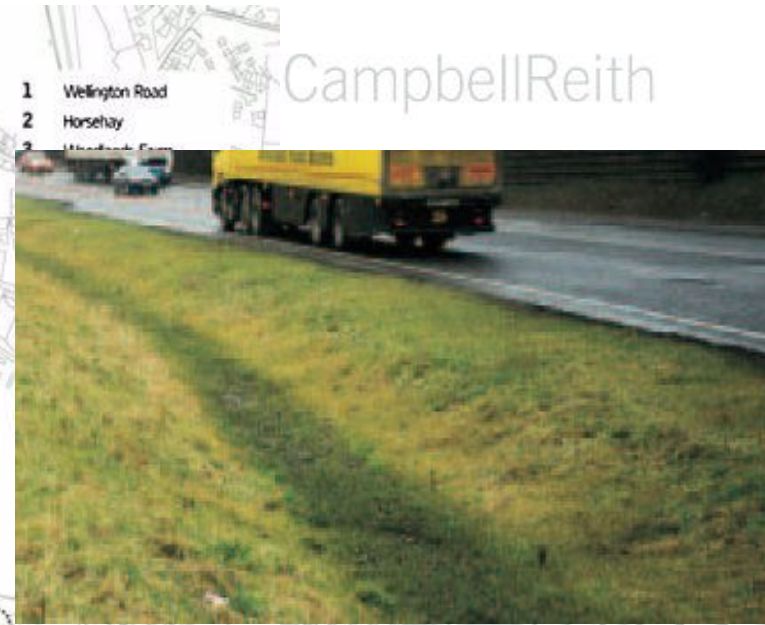
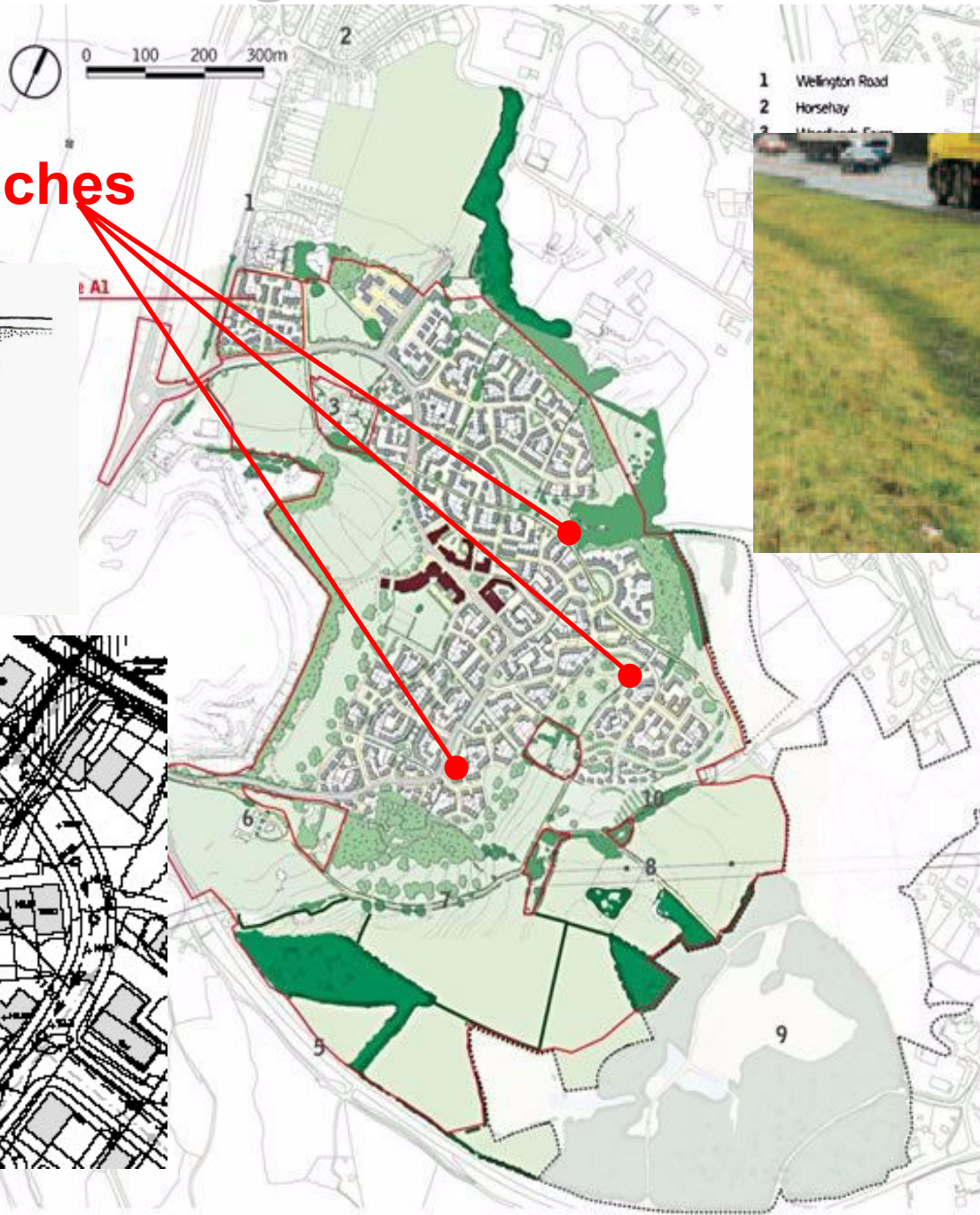
- 1 Wellington Road
- 2 Horsehay
- 3 Woodlands Farm

Wet Pond

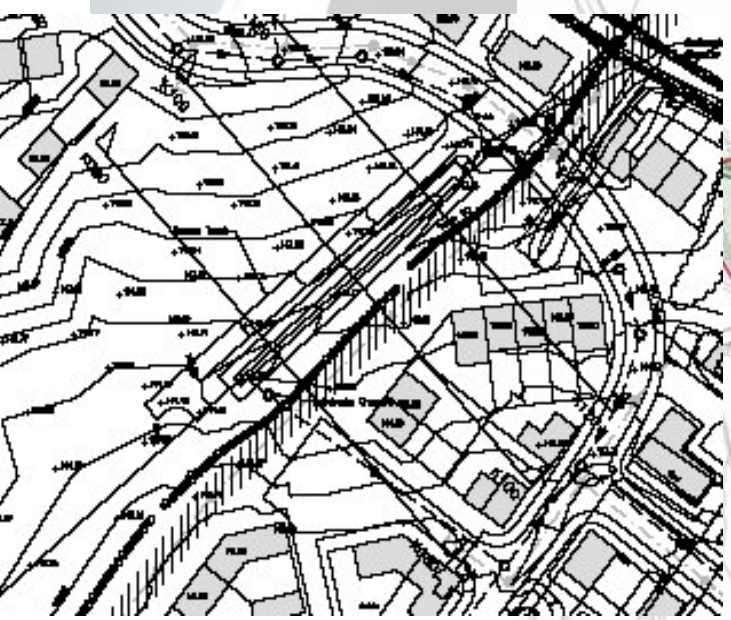
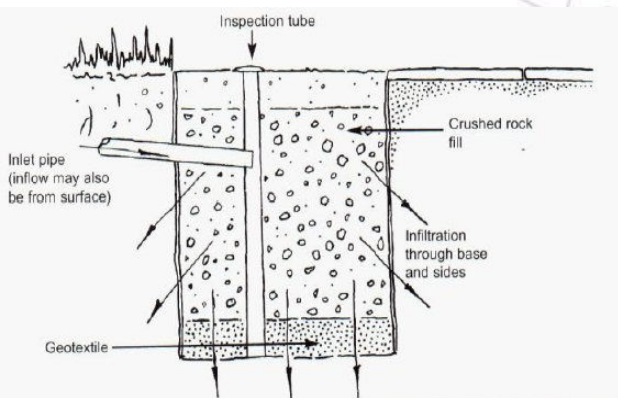


Stage 3: Site Control

Infiltration Trenches



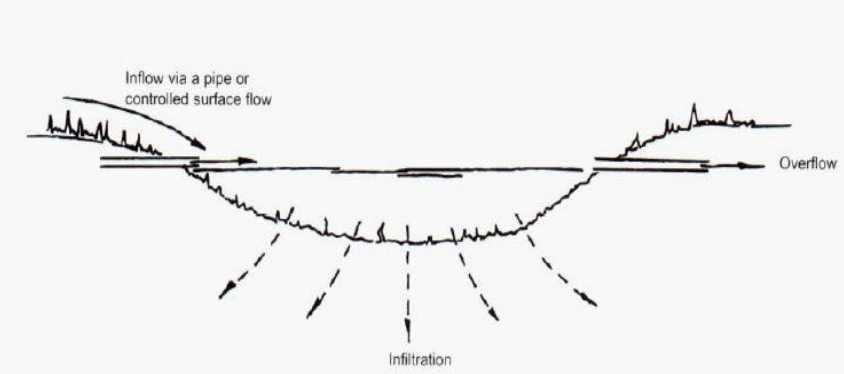
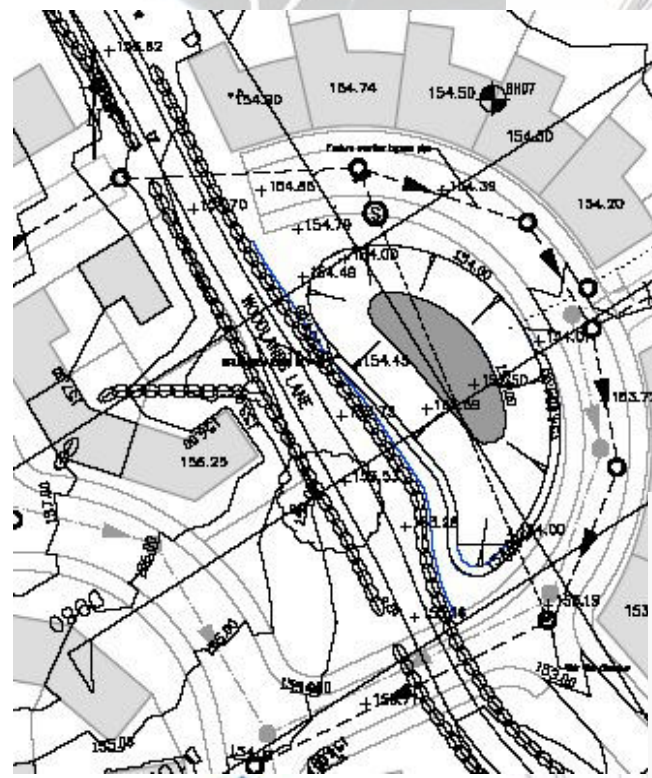
Campbell Reith



Stage 3: Site Control

CampbellReith

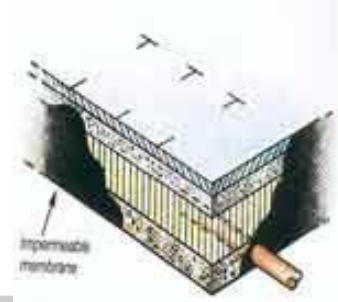
Infiltration Basin



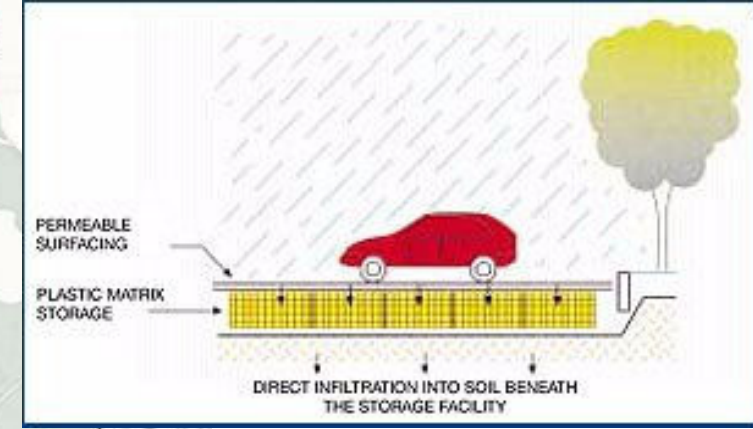
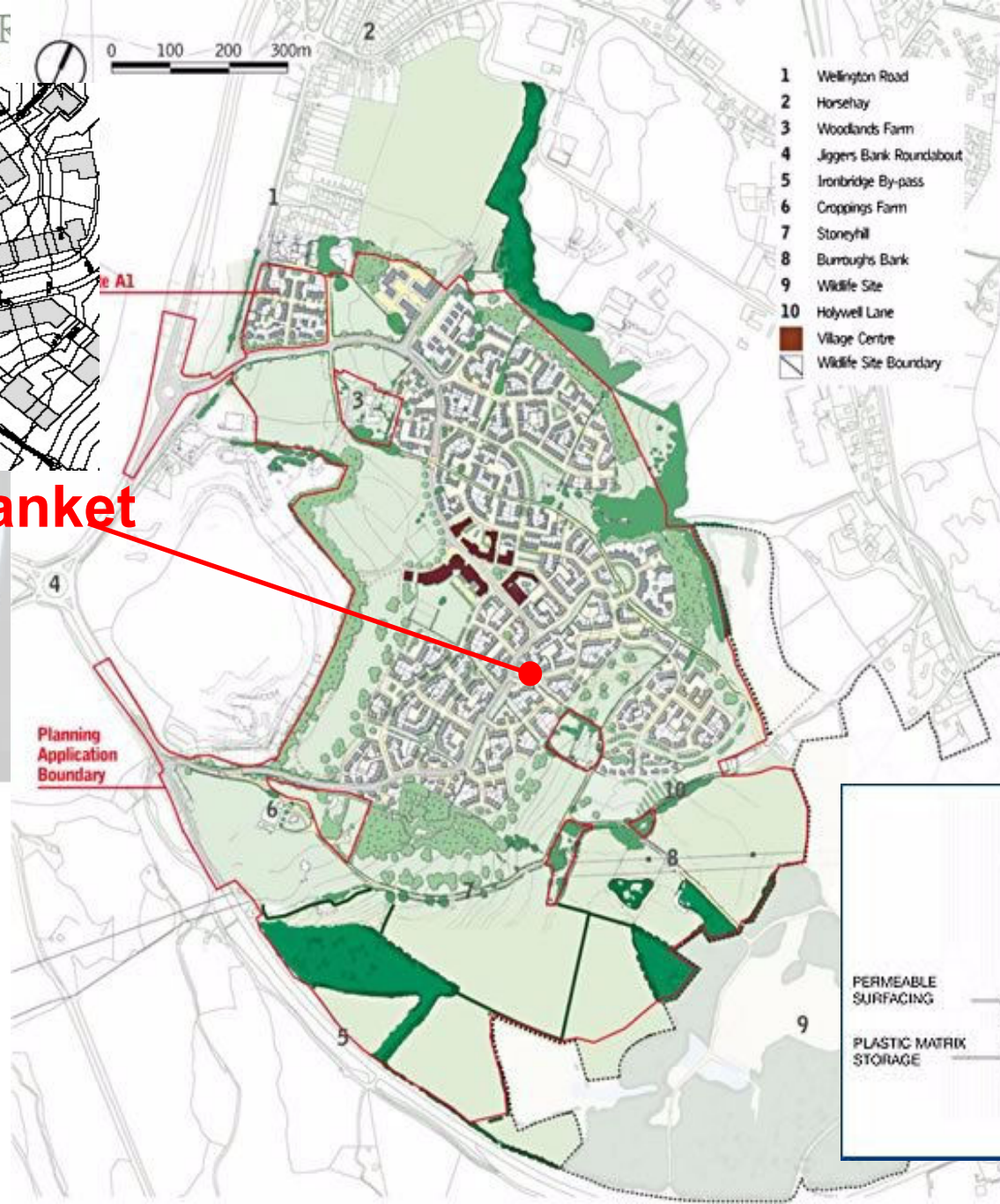
Stage 3: Site Control



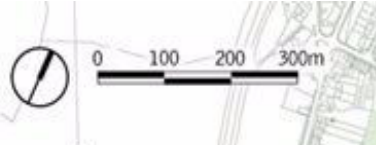
- 1 Wellington Road
- 2 Horsehay
- 3 Woodlands Farm
- 4 Jiggers Bank Roundabout
- 5 Ironbridge By-pass
- 6 Croppings Farm
- 7 Stonyhill
- 8 Burroughs Bank
- 9 Wildlife Site
- 10 Holywell Lane
- Village Centre
- Wildlife Site Boundary



Infiltration Blanket

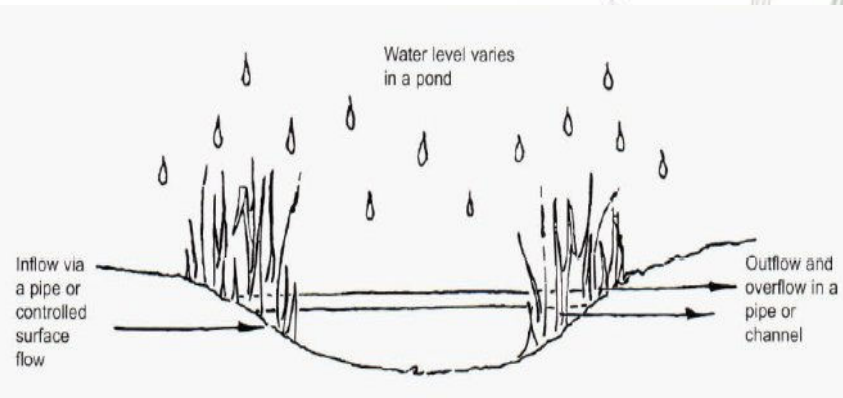


Stage 4: Regional Control



- 1 Wellington Road
- 2 Horsehay

Campbell Reith



Wet Ponds

