



ARUP



<https://greenergrangetown.wordpress.com/>

CLIENT

Ian Titherington

Lead Drainage Officer



CONTRACTOR

Ken Evans

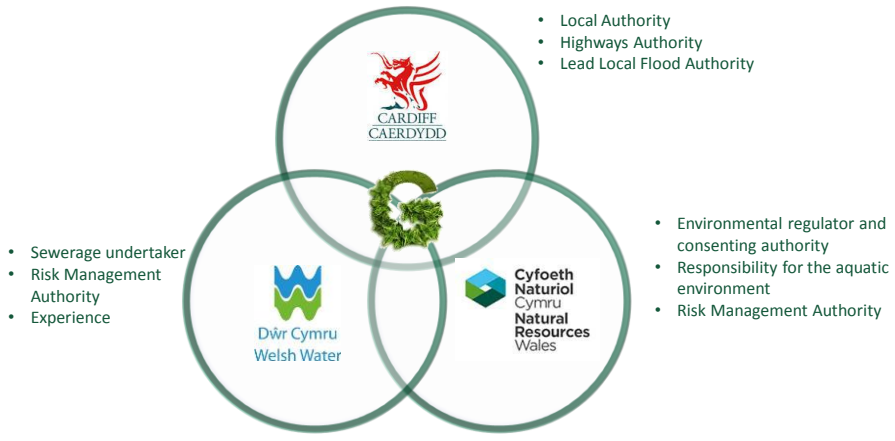
Civils Operations Director



'Unsustainable' drainage



The Partnership



The Greener Grangetown vision

- To make Greener Grangetown an exemplar scheme for sustainable drainage in Cardiff, Wales and beyond
- To encourage greater partnerships with the public, private and third sectors – combining both expertise and funding
- To enhance the visibility of water
- To change the perception of rainwater, to become regarded as an asset



Multiple benefits

Engagement and Education



Design Process & Integration

Bargoed Street

1 You said...
 ...that litter was an issue
 ...you liked the idea of trees
 ...that you didn't want benches
 ...that parking was an issue in the street

2 We did...
 Proposed plan (option 1)
 Proposed plan (option 2)
 Key:
 Proposed cycle stand
 Proposed cycle parking
 Proposed rain garden
 Proposed permeable paving
 Proposed street lighting
 Proposed cycle stand (if resurfacing)
 Proposed permeable paving
 Proposed street lighting
 Proposed rain garden
 Proposed cycle parking
 Proposed permeable paving
 Proposed street lighting

3 You decide...
 Permeable paving colour options
 What planting would you like to see?
 Trees
 Shrub planting (flowering months)
 Other shrubs and grasses
 Proposed View (sketch)
 Please fill out the questionnaire



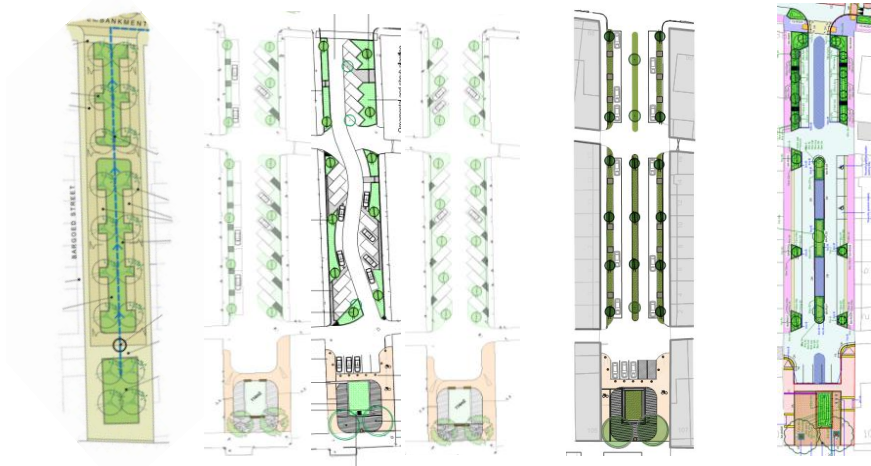
Design Process & Integration

Community Engagement



Design Refinement and Development

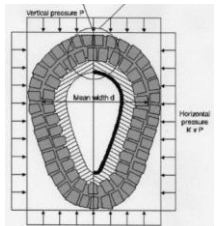
FeasibilityOutline & Optioneering..... ConsultationFinal Design



- Civil Engineering
- Smart Technology
- Traffic Management

Challenges

Utilities and ground conditions



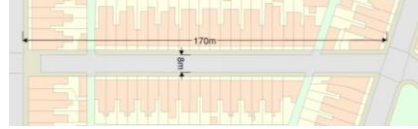
Grangtown Bridge, 1985



Challenges

Street geometry & parking

'Narrow' Street



'Wide' Street



Challenges



Liaison with the Public



Working with Urban Trees



Working with Urban Trees



Construction in 'Dead end' areas

Before



'Dead end' areas

After





Construction in Taff Embankment

Before



Taff Embankment

After



Final Design





In partnership



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