

# Innovation Bulletin

Ref: TSI 0130

10<sup>th</sup> October 2011

## Aquaspira SRP composite pipes for Sewers in Highway

### Brief Description

Severn Trent Water are investing over £9m in Leamington Spa Phase 1 and Phase 2, upgrading 3.5km of existing combined sewers located in public highway. This will remove 77 properties from the flooding register and reduce the frequency of storm discharges to the River Leam. The works require deep excavations in busy highways throughout the town centre, and the site team are committed to minimising disruption to customers, accommodating the needs of pedestrians and businesses and managing the H&S risks. Prior to the works commencing on site, collaborative working between

**NMCNomenca** and **Aquaspira** resulted in the development of a product ideally suited for the highway environment. This ensured a robust and efficient solution together with beneficial production and commercial outcomes.



- Enables standard modular trench support techniques to be used and facilitates pipelaying between existing services.

#### On site lateral connections

- Total flexibility in transferring existing connections
- Speed of production, ease of installation and ease of production planning

#### Delivery / stacking.

- Pipes individually chocked and banded for safe delivery, offloading and on-site storage. Large pipes delivered two high with the top row pre-slung, removing the risks associated with working at height



### Benefits

#### Composite lightweight pipe-wall

- 4% gross weight of equivalent concrete pipe
- Easier on site storage and safer handling.
- Reduction in plant size.

#### Dimensionally compact

- Pipe wall and slim-line socket allow trench width to be reduced by 200mm compared to the equivalent concrete pipe.

#### Push fit rubber ring jointing

- For speed of production and ease of installation

#### Variable pipe lengths

### Details:

**Aquaspira** worked in close liaison with the **NMC Nomenca** Leamington Design Team from Stage 2 of the projects, to develop and adapt their patented composite pipe technology to suit the particular challenges that the installation at Leamington would present. Development stages included liaison with STW Asset Creation and Service Delivery to ensure compliance, followed by approval from Warwickshire County Council, to check and ensure compliance.

#### ***Particular challenges to be overcome included;***

Multiple uncharted connections

Confined working areas, with limited storage areas for plant and materials.

Existing underground and overhead services.