Liverpool City Council: Transpennine Trail

Case Study

Key Outcomes

- Modular drainage system successfully connected to adopted highways existing manhole and drainage system
- Walkway completely waterlogging free on commissioning, sustained post-commissioning
- Gravel grid continuing to drain any residual water at the path-to-verge apron
- Previously flooded ground now a stable, usable permeable surface

Project Overview

Liverpool City Council's Live Labs 2 programme chose Castletown Close, an access point onto the Transpennine Trail, for an integrated modular drainage system solution.

Delivered with DOWHIGH Limited, in collaboration with Civil Water Management Ltd and Rosehill Group, the scheme combines modular drainage system Drainage Mat, Grip Strip/Spur and Stacker units replacing a persistently flooded walkway and an adjacent waterlogged patch of ground. A recycled-material installation that routes two challenging catchments and connects them into an adopted highways existing manhole and drainage system.

The Challenge

- **Chronic surface-water pooling** on a key active-travel route into the Transpennine Trail and adjacent land, were making it unusable for local residents and inaccessible to emergency services in wet weather and winter periods.
- **Environmentally sensitive** woodland setting that ruled out deep trenching and new pipework.
- **An existing highway manhole** was available but needed to be connected into.

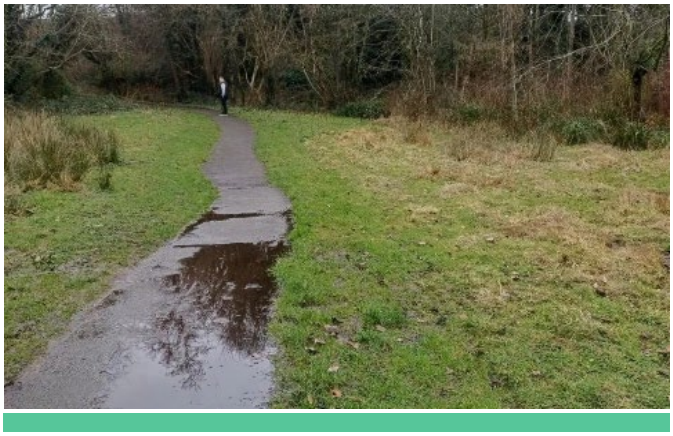
Project Details

Client:	Liverpool City Council - Live Labs 2
Contractor:	DOWHIGH Ltd
Partners:	Rosehill Group
System:	Integrated modular drainage to adopted highways manhole and drainage system with Drainage Mats, Drainage Stackers, Drainage Grips/Spurs
Location:	Castletown Close, Liverpool

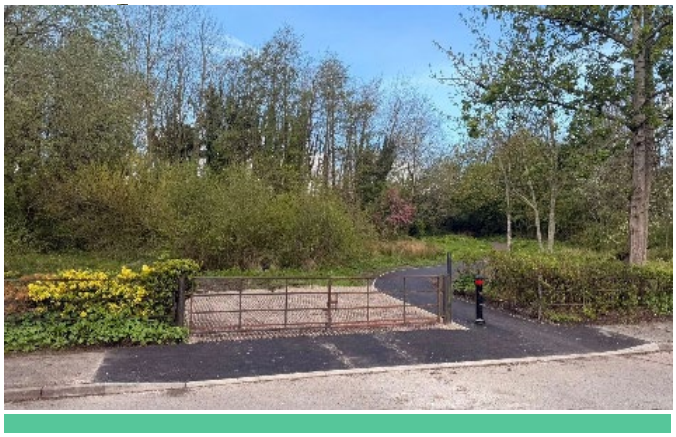
The Solution

- **5m × 6m Drainage Mat bed** laid over the worst-flooded ground, replacing standing water with a permeable, trafficable surface.
- **Drainage Stacker units** running from the mat bed across to the existing manhole arrangement, carrying collected water out and bridging the depth between the mat level and the drain invert
- **Radial Drain of Grip Strips/Spurs** collecting surface water off the new asphalt path and feeding it into the same existing drain
- **Modular, recycled-material build** installed quickly on site with no deep trenching - preserving the woodland setting
- **Sealed asphalt wearing course** finished with a visible gravel-filled mat apron at the path-to-verge transition.

Before and After



Before: waterlogged conditions



After: accessible, drained route

Why It Matters

Castletown Close shows how modular drainage systems can be adapted to connect into existing adopted highways manholes and drainage systems. A practical approach for flood-prone paths in built-up and environmentally sensitive settings. As a Liverpool Live Labs 2 location, the methodology is designed to replicate across Liverpool, and demonstrates the effectiveness of integrated drainage designs to overcome difficult site conditions and acute water management challenges.

Benefits for Highway, Parks and Active Travel Teams

Flood resilience	Eliminates persistent waterlogged pathway and supports year-round route performance.
Low impact construction	No major trenching or pipework, reducing disruption in sensitive public spaces.
Sustainable materials	Uses recycled rubber drainage components with a low-carbon design approach.
Scalable application	A repeatable solution for local authority footpaths, cycleways, parks and public realm routes.

Discuss Your Project

Let our team help you find the right drainage solution for your project.

E: info@civilwatermanagement.com T: 0203 189 1468 W: www.civilwatermanagement.com

Modular Drainage Units are manufactured by Rosehill Group.