



## Pipeline Support Services – Heritage Projects.

Pipe rehabilitation using non-destructive techniques.





## Historical Building Pipeline Services

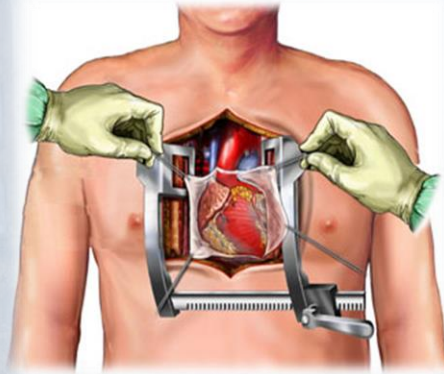
Nu Flow's pipeline solutions are quick, cost effective, minimally disruptive and can be carried out without the need to excavate or disrupt architectural heritage.

We understand the crucial importance of preserving the original infrastructure in historic properties, which is why our patented solution is used and recommended worldwide!

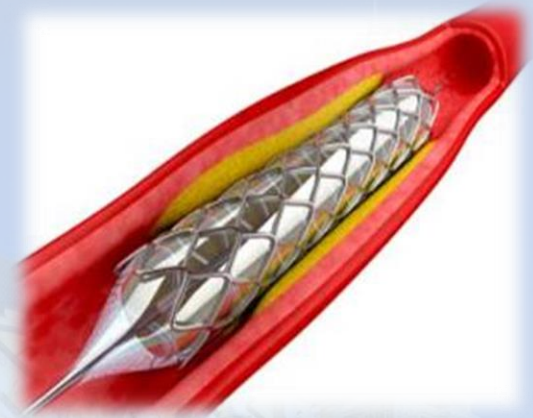
## Angioplasty for Buildings



Aspirin resembles a plumber's temporary 'band-aid' repair to pipeline problems. This is a short term solution but the real problems will continue to surface in the long-term.



Open heart surgery resembles a traditional pipe replacement or reroute, which is expensive, invasive, damaging and time-consuming.



Angioplasty resembles Nu Flow's in-place pipe lining solutions, because it causes the least amount of damage while providing an effective, long-term solution.

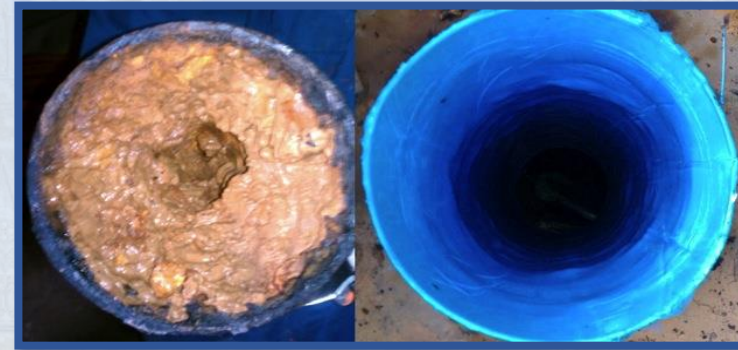
## Common Applications for Pipes Ranging in Diameter from 12mm to 250mm

### Epoxy Coating



- ✓ Hot and Cold Potable Water Systems
- ✓ Lead Pipes
- ✓ Compressed Air
- ✓ HVAC / Hydronic and Chiller Systems
- ✓ Fire Suppression Systems
- ✓ Processed Conduit & Chemical Piping
- ✓ Gas Service Lines

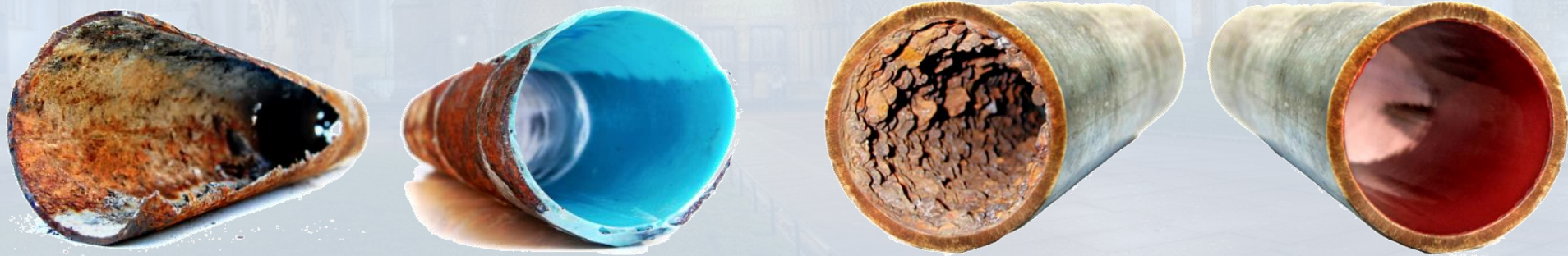
### Structural Liner



- ✓ Vertical Sanitary Stacks
- ✓ Horizontal Sewer Branches
- ✓ Sewer Mains
- ✓ Roof Drain Systems
- ✓ Spot Repair Liners

## Benefits

- ❖ Non-disruptive to building fabric
- ❖ No-digging required
- ❖ Cost effective
- ❖ Minimal downtime of systems
- ❖ Permanently repairs leaks
- ❖ Maintains pressure and flow
- ❖ Prevents future corrosion
- ❖ Safe and durable
- ❖ Preserves the life of the pipe
- ❖ Eco-friendly



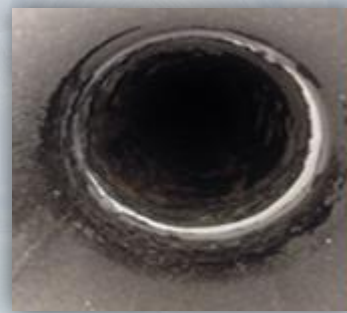
## Case Study: 19<sup>th</sup> Century College, Ireland

- ❖ Maynooth University is one of the fastest growing universities in Ireland.
- ❖ Distributary heat system pipes serving campus buildings from the central boiler house.
- ❖ Problematic area consisted of a 75mm (3") gun-barrel pipe reducing in size to a 50mm (2") gun-barrel pipe.
- ❖ The aging system had problematic areas due to severe internal corrosion and was very difficult to access as it ran below the south campus' swimming pool building.



## Case Study: 19<sup>th</sup> Century College, Ireland

- ❖ Nu Flow were able to access the system through manholes at opposite sides of the swimming pool building.
- ❖ Successfully rehabilitated the aging pipe with 'Nu Line' technology to repair leaks and prevent future corrosion .
- ❖ No excavations were required and no disruption was caused to building architecture, students or campus users.



## Case Study: Linn County Courthouse, Oregon

- ❖ 60 year old 3 story courthouse.
- ❖ Potable water pipe system located under a concrete slab beneath the courthouse floors.
- ❖ Diameters ranging from 12mm (1/2") to 75mm (3").
- ❖ The system was severely corroded.
- ❖ Traditional pipe replacement would have caused a significant amount of disruption to the busy courthouse.
- ❖ Nu Flow successfully rehabilitated the system without any excavation or destruction within the courthouse.





## Case Study: Maryland House of Delegates

- ❖ Built in 1974, 191,000 square feet, four-story building.
- ❖ Original storm drains made of galvanized pipes, ranging from 75mm (3") to 125mm (5") in diameter.
- ❖ HVAC heating and cooling pipe system, made of black iron pipes and approximately 1.5 miles long, ranging from 60mm (2.5") to 100mm (4") in diameter.
- ❖ Roof drains were cracked and breached, allowing water to get into the building during rain fall and snow melt.
- ❖ HVAC system throughout the building was breached, corroded and non-functional.



## Case Study: Maryland House of Delegates

- ❖ The pipes ran throughout the building and were embedded in parts of the original structure that the customer did not want to disturb.
- ❖ Nu Drain was used to rehabilitate the storm drains, and Nu Line was used on HVAC system.
- ❖ Nu Flow preserved this government building with our innovative, no-dig technology.
- ❖ Saved the customer time and money and greatly extended the useful life of the pipe systems.
- ❖ No destruction was caused to the important government structure.



## Case Study: Ringling Museum of Art, Florida

- ❖ 100mm (4”) cast iron sanitary stack.
- ❖ Pipeline was embedded in a 100year old masonry wall running from the 2<sup>nd</sup> floor down to the basement.
- ❖ Pipe was cracked, clogged and leaking inside the walls of one showroom.
- ❖ Pipe replacement would have caused extensive damage to the museum infrastructure.
- ❖ Nu Flow installed the Nu Drain structural liner to fully rehabilitate the system without causing any damage or destruction.



## Case Study: Historical House, Virginia

- ❖ Set on 20 acres, this home and tourist attraction is located in the Virginia Historic District.
- ❖ Built in 1908, the plumbing and piping system was later installed in 1920.
- ❖ Copper potable system with diameters all under 25mm (1") located behind plaster walls and below the homes original 1908 concrete and stone foundation.



## Case Study: St. Bartholomew's Church, New York.

- ❖ Landmark, historic cathedral in Manhattan, New York. Founded in 1835.
- ❖ 175 year old multi-level roof drains. Pipes were embedded in the cathedral walls behind two feet of brick work as well as on the exterior of the building, over 30m (100ft) above street level.
- ❖ Over 50 drains reaching various roof levels up to the dome of the church including multiple bends and balcony tie-ins.
- ❖ Individual drain pipes ranged in length from 10m (30ft) to 30m (100ft).



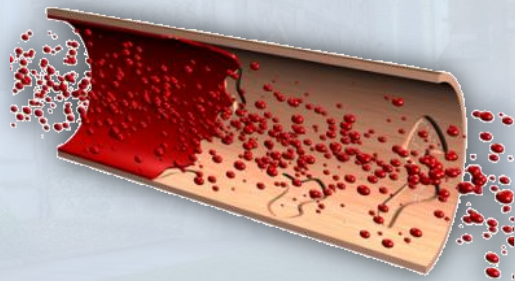
## Case Study: St. Bartholomew's Church, New York.

- ❖ Partly disintegrated roof drain lines had caused extensive water damage in the historic church, particularly during times of heavy downpour.
- ❖ The church selected Nu Flow because of their experience and reputation with similar clients and challenges.
- ❖ Nu Drain structural liner was pulled into place and cured to the existing host pipes to stop leaks and avoid further damage to the building's architecture.
- ❖ Nu Flow's technology eliminated the need for major destruction of the historic landmark.



## Case Study: Historical House, Virginia.

- ❖ Pipe replacement would have required the century-old foundations to be dug up – unwanted, expensive, messy and time consuming.
- ❖ Nu Flow technicians used existing access points to clean and line the three-story home's potable water pipes to a better than new condition.
- ❖ No destruction was caused and the original foundations were preserved as a result.



## Satisfied Clients

**“It is considered that Nu Flow saved in excess of 50% in costs and 90% of disruption when compared to traditional pipework replacement for this 1960’s property. We have no hesitation in recommending Nu Flow and their Nu Line Technology for undertaking remedial works to pipework”**

**Ger Browne,  
Director at Carroll and Browne Consultants - Ireland.**

**“We have recommended Nu Flow’s pipe rehabilitation technology as a solution to a number of sensitive projects in the recent past. Their proprietary technology is a revolutionary resolution to some of the very complex challenges being faced by our clients and we have been extremely satisfied on each occasion we have used their services”**

**Steve Munn,  
Project Director at Midland Corrosion Services – Derby, UK.**



To view more case studies please visit our website;

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