AUSTRALIA'S LARGEST POINT-LINER INSTALLATION

ITS Pipetech was recently awarded a diverse storm water rehabilitation project in the Illawarra region, that involved numerous installations of ITS's point-lining system to rehabilitate pipelines across the local government area.

The point-liner technology was accompanied by robotic, CCTV and cleaning services to allow for a 'full circle' service to the council for pipeline maintenance and rehabilitation. Within this package of works, the diameter ranges of the pipelines varied from DN375 all the way up to DN1500.

ITS Pipetech is the industry leader in providing point-lining solutions for repair of sewer, stormwater and industrial pipelines. The point-lining system is a proven, time tested and localised pipeline repair product for gravity pipelines for diameters ranging from 80 mm up to (previously) 1050 mm.

The solution

With the client's need for a cost-effective trenchless solution for repairing a DN1500 pipeline, ITS contacted their European partner and supplier Bodenbender for the procurement of a packer capable of achieving the task. ITS and Bodenbender were able to achieve the desired outcome for the client, which was rehabilitating displacements within the DN1500 Pipeline.

The process

ITS Pipetech followed the same guiding principles of process for this undertaking as they would a small diameter point-liner. The pipeline was first prepared prior to rehabilitation, this included high pressure water jetting to clean the pipelines to remove any foreign debris or sediment which could affect the adhesion or the point-liner to the host pipe and also the headwall area where preparation of the fiberglass was undertaken. CCTV inspection of the asset was used to identify the correct reported defect and to undertake a pre-repair video footage to form part of ITS's comprehensive quality assurance. The six-man crew then prepared the required fiber glass and resin amounts required, then continued to install into the pipeline for inflation which was then left to cure for a number of hours.

The result and benefit

The seven DN1500 point-liners were installed over a four-day period. The key benefits for ITS Pipetech's client included environment, community impact and cost. By undertaking a trenchless rehabilitation option as compared to a conventional civil excavation process, it meant there was no disturbance to the environment with all works being undertaken within a 10 m2 area, with all material contained and disposed of within minutes of application.

The project area was located within a highly residential area surrounded by local shops and schools, which meant any traditional means of rehabilitation would lead to lengthy delays of local traffic and high impact on the area with regards to noise. The point-lining works were completed completely off the road, which meant zero disruption to the local area.

ITS Pipetech's point-liner repairs are compliant with AS2566 – Flexible buried pipelines, which has a 50-year design life. By installing ITS's point-liners on only the critical defects identified by the local council, they were able to repair at least three times as many defects and assets for the same budget when compared to other repair methodologies.

ITS Pipetech understands these DN1500 point-liner repairs have been the first of their kind in the diameter range within Australia to date.