

Liverpool to Ashfield Pipeline

24km Pipeline from Liverpool to Ashfield



Project Need

The Northern Georges Sewerage Submain required rehabilitation due to a sewage gas attack, resulting in the Southern Western Sydney Sewerage Scheme project to implement a 24km pressure trunk main pipeline from Liverpool to Ashfield. The aim of the Liverpool-Ashfield pipeline was to extricate some capacity from the Northern Georges River Submain by redirecting the treated effluent from Glenfield and Liverpool and untreated effluent from the Fairfield and Smithfield catchment to the new pipeline which would flow to the Western Branch Main Sewer situated in Ashfield. Once the flow reaches Ashfield, it would then be transported to the Malabar Treatment Plant for discharge. Some of the treated effluent from the Liverpool-Ashfield pipeline will be extracted and transported to the Fairfield Plant for further treatment.

The utility also had the intention to use the Liverpool-Ashfield pipeline for water recycling purposes by 2010. The pipeline would then be transformed to provide recycled water to industrial clients as part of the Camellia Recycled Water Scheme.

Solution

Steel Mains was formally requested by Sydney Water to manufacture and supply 24km of Sintakote® pipes in various diameters (1067OD, 1124OD and 988OD). The lining of the pipeline was specified with cement mortar lining, and calcium aluminate cement mortar lining for the pipes delivering more septic aggressive sewerage flows. The calcium aluminate cement lining provides superior resistance to chemical attack and abrasion, preventing degeneration of pipe walls from sewage and industrial waste. Sintajoint Rubber Ring Joints and Spherical Slip-in Joints were also manufactured to complete the range.

Leighton Contractors were responsible for constructing the pipeline and were able to complete construction prior to the required timeframe. This is partly owed to the inventive benefits of Sintajoint that support fast installation speeds through improved pipe laying rates as well as eliminating time-consuming welding. This jointing technology is also fully protected internally for aggressive fluids. Additionally, the Spherical-Slip in Joint allows contractors to achieve a rapid field assembly for weld preparation.

Project: Liverpool to Ashfield

Principal: Sydney Water

Location: Sydney, NSW

Completion: 2007

Supplied: 24km of 988OD, 1067OD & 1124OD Sintakote® Sintajoint Rubber Ring Joint (RRJ) & Spherical Slip-in Joint (SSJ) Steel Pipe

Achievements

The \$130 million dollar project was completed eight months prior to scheduled completion. The Liverpool-Ashfield pipeline can successfully be used to assist with transporting raw sewerage and effluent flows passing across some of the most populated areas of Sydney.

The Liverpool-Ashfield pipeline is an essential infrastructure that reduces the flow of the Northern Georges Submain, which would ensure a more safe and efficient rehabilitation of the Submain – the solution for the most desired outcome. Steel Mains was delighted in its continual efforts to provide steel pipeline solution to the largest sewerage force main in Sydney that will positively impact the community's living standards.