Case Study: Utilities

Challenge
- Client needed to rehabilitate 6,400 feet of existing 18" & 20" Steel Chilled Water Lines
- Existing steel host pipe had developed significant pitting and corrosion with quarter inch holes present
- Pipeline located in sensitive area with student activity and through heart of campus
- The system could only be shut down for a limited period of time during campus in-activity
- Flow capacity needed to be maintained as the pipeline is a critical artery of the system that cools the biochemistry building and student dormitories

Solution
- Several construction methods were evaluated, with Swagelining™ being selected to maximize flow capacity, limit excavation, follow the existing utility path and speed of installation
- 6,400 feet of the pipeline was renewed using the Swagelining™ technology with DR 26 HDPE PE 4710 pipe.
- Murphy Pipelines were able to design the project with Swagelining Limited’s assistance to maximize the pull distances on the project. Pulls over 1,100 feet were achieved.

Impact
- The small footprint of utilizing the Swagelining™ technology resulted in a significant reduction in social and environmental costs.
- Excavation was 90% less than what open cut trenching would have required.
- ‘Tight’ fitting polyethylene will provide long term design life, corrosion protection barrier and prevent further leaks on the pipeline.
- The rapid installation and small footprint was a key element in minimizing the impact to faculty and student life.

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