

BLACKSTONE ROAD SPS Upgrade Works

Date: Aug 2020 to Sept 2021

Principal: TasWater

Project Value: \$2.0M

TASK

Shaw were contracted by TasWater CDO to construct a new pump station in amongst a residential setting. This was to be completed around a live temporary solution generated because of a landslip on an adjacent property.

At the bottom of the block, a manhole had been repurposed into a temporary pump station following a landslip in the area, taking out the gravity sewer line. Works revolved around installing a new pump station at the bottom of a steep block to replace the temporary arrangements.

For construction and ongoing maintenance, vehicular access was required to reach the pump station. This involved the drill and blast, excavation, formation and sealing of an access road to a crane pad constructed on a mass block retaining wall on concrete foundations. A steel stairway was then installed to reach the concrete apron below, housing the pre-packaged pump station, electrical switchboard, valve cabinet and storage cabinet.

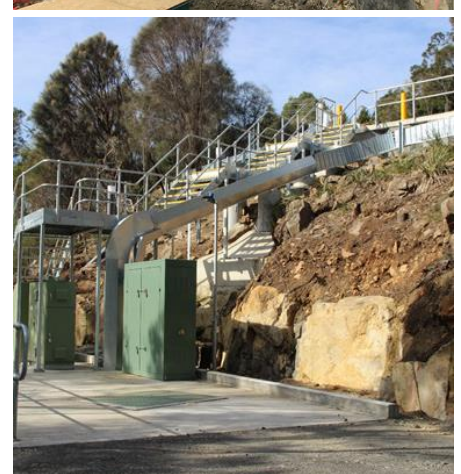
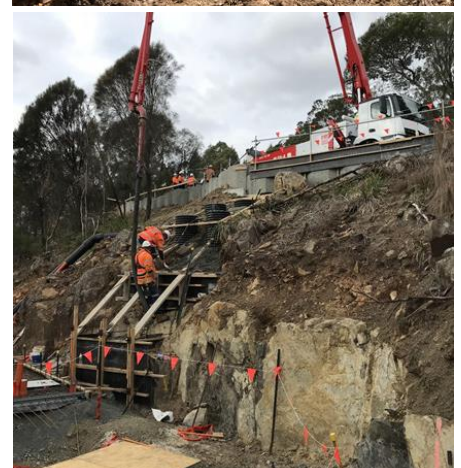
A cable tray up the boundary then held electrical conduits linking upper and lower switchboards, as well as the sewer rising main and water connection. A boom gate, landscaping and planting of grasses and trees completed the works.

CHALLENGES

As the suburb name suggests, the site at Blackstone Heights was solid rock requiring drill and blast to form the access road. At the closest points this was approximately 10m away from existing residences in a landslip zone, resulting in close monitoring and careful preparation and execution. Detailed blast management plans were required for these works including close consultation with neighbouring residents to permit these works to occur.

Also due to the proximity to local residences, vibratory rollers were not allowed during earthworks or pavement construction. To ensure strength in the pavement with the steep topography, cement stabilized gravel was used.

Since Blackstone Road is a dead end street with low hanging power lines, large earthmoving equipment could not be transported in.



CHALLENGES Cont'd ...

The temporary pump station arrangements had to remain in place until the new pump station was commissioned and operational. This meant installing a bypass around where the new pump station would go, and drill and blast around the existing pipeline.

Due to the difficult site topography several aspects of the project required design input/clarification during construction. Shaw had to work with TasWater to continually refine the design to match site requirements.

OUTCOMES

The project was completed to a high standard of quality. Access was provided for TasWater maintenance down to the new fully functioning pre-packaged pump station.

The project suffered a number of false starts due to stakeholder/neighbour issues managed by others. Once the project commenced it was completed expeditiously delivering an awesome outcome for TasWater and the Blackstone Heights community.

