PROJECT:	**Tuart College Fire System Upgrade**
LOCATION:	**105 Banksia St, TUART HILL WA 6060**
SCOPE OF WORK:	**Fire Hydrant Protection**
COMPLETION DATE:	**June 2020**
CONTRACT VALUE:	**$550,000.00**

Tuart College is a senior college within the Western Australian Government's Department of Education and Training with over 20 years' experience educating students.

SCOPE DETAILS

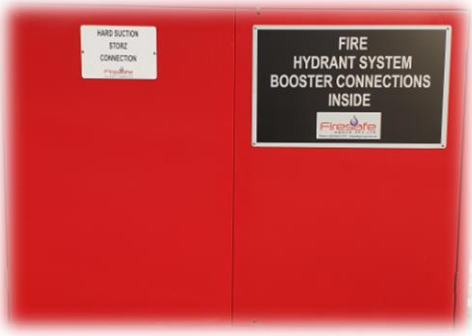
Within our scope, we were tasked with the design and installation of an upgraded Fire Hydrant system including a new pump house:

- A new compliant Fire Hydrant system in accordance with AS2419.1-2005.
- Fire Hose Reels installed compliant with AS2441-2005
- New Fire Pumps consisting of 1 x diesel duty booster and 1 x standby diesel booster pump compliant with AS2941-2013.
- 2 x 72 kL galvanised fire storage tanks in accordance with AS2304-2011.

Firesafe Inground supplied and installed internal fire hydrants within the fire isolated stairwells.

Fire Hose Reels were installed throughout the building to satisfy the requirements of the Building Code of Australia and the Fire Engineering Report. We also disconnected and capped redundant existing hydrant pipework and outlets around the project.

A Booster assembly was installed equipped with valves, pipework and remote start/stop buttons within a Booster Cabinet.

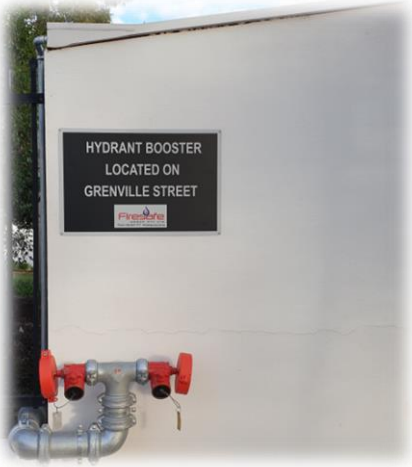


There was a Backflow Prevention device (DCV) installed to the existing WCWA town's main connection. This was housed within a protective locked cage.

All above ground pipework was AS1074 galvanised pipe, below ground pipe was PE Polyethylene SDR11 pipe.

The fire water tanks are fed by a town's main water supply connection on Grenville Street.
The mains connection is fitted with a backflow prevention valve and is fitted with a sluice gate valve adjacent to the site boundary.

A new Pump House was built to house the 2 x diesel fire pumps which supplies both the fire hydrant and fire hose reel systems.



CHALLENGES & SOLUTIONS

- Being an educational college, the site was operational whilst the works were in progress, therefore we had to stage the install works to suit both the client as well as the operational hours of the college.

- The project works were planned over various stages, Stage 1 required us to have a new system installed and running within a given timeframe which included the installation and commissioning of the new pumps and tank.

- We were required to communicate with all relevant authorities such as DFES to have permits and certificates provided to allow the progress and completion of works to be achieved in accordance with our Contract to meet PC for the project.