COMPLETED PROJECTS

PROJECT:	**CIVMEC**
LOCATION:	**Henderson**
SCOPE OF WORK:	Wet/Dry Fire Protection
COMPLETION DATE:	October 2020
CONTRACT VALUE:	$3.2M

Civmec is an integrated construction and engineering service provider to the Oil & Gas, Metals & Minerals, Infrastructure and Marine Defence sectors located in Henderson WA. The company was established 2009 and has grown to be one of Australia's leading providers of turnkey engineering solutions.

The new state of the art facility in Henderson is set on 200,000m2 of land located in the WA Marine Complex precinct. It is the largest fabrication facility of its kind in Australia and is enhanced by 53,000m2 usable floor area, assembly and sustainment hall, making it the largest undercover modularisation and maintenance facility in Australia.

SCOPE DETAILS

Within our scope, we were tasked with the design and installation of:

- A compliant Fire Sprinkler system in accordance with AS2118.1-1999 and AS4118 1996. The system classifications are Light Hazard to Offices, Ordinary Hazard 1 to the Carpark, Ordinary Hazard 3 to the Mezzanine and Workshop and High Hazard Category to the Storage Bays.
- A compliant Fire Hydrant system is stalled through the whole site in accordance with AS2419.1 (2005).
- Fire Hose Reels in accordance with AS2441 (2005) have been installed in the main assembly hall located in cabinets within the fire isolated stairwells.
- Fire Pumps compliant with AS2941 (2008) and AS2419.1 (2005) consisting of twin single stage Diesel Fire Pumps fed by 2 x 425Kl fire water storage tanks have been installed.
- Portable Fire Extinguishers have been installed in lockable galvanised cabinets in accordance with AS2444 (2001).
- A compliant Fire Detection and Warning system has been installed in accordance with AS1670.1 – 2015 and AS1670.4-2015

Fire Sprinkler Control Valve assemblies are located within the Valve Room on the Ground Floor, West End and within the Fire Pump Room.

The system is interfaced with the Fire Indicator Panel located within the dedicated Fire Control Room. Operation of any sprinkler head transmits a signal to the FIP via a pressure switch which activates the building occupant warning system and transmits a signal to the Fire Monitoring Authority.

Internal Fire Hydrants are located within fire isolated stairs and outside the staircases of the Main Assembly Hall, internal fire hydrants are located within the stores facility, external fire hydrants are located on the roof car park and around the surface treatment facility. The site wide fire hydrant ring main is a combination of above ground and underground mains served by the common pump and tank water supply system.

Fire Brigade booster assemblies are provided as part of the site wide fire services infrastructure. Two fire brigade booster assemblies are provided for hydrant system and two for the fire sprinkler system. Each assembly is equipped with a hard-suction line and a quad booster inlet for use by the Fire Brigade.

The Fire Hose Reels are located within the Main Assembly Hall within the fire isolated stairwells. Internal hose reels are also provided to the car park and stores areas. Fire Hose Reels are provided to the surface treatment facility, these are housed in cabinets.

The fire pumps consist of 1 x Duty Pump, 1 x Standby Pump and 1 x Jockey pump and are installed within the fire pump room located next to the car park east of the Ship Assembly Hall.

The Fire Water Storage tank is a galvanised steel rectangular panel tank with epoxy liner. Tank infill is divided into two equal parts fed from 150Ø incoming town's main water supply.

The new analogue addressable Fire Indicator Panel is housed in a dedicated Fire Control Room located within the Pipe Workshop and is fully equipped with a 24 VDC power supply complete with batteries and also equipped with network modems to allow networking to other fire panels.

The Occupant Warning system has been provided complete with recessed speakers and horn speakers throughout all areas to comply with AS1670.4 requirements. System amplifiers within the FIP and DGP form part of the site reticulation.