

POWER FOX – Drone inspection

Description

Drone technology used to perform an internal inspection on the DWAS bin at Oxley STP50 where previously a confined space team was required.

Solution Better Way

The deployment of a crash proof drone to capture high resolution images of structural elements within the DWAS bin for engineering evaluation.

Impact

The drone was able to collect images as directed by the Structural Engineer in real time, a flight plan was developed so that future inspections can be repeatable & comparable.

The inspection was completed in a few hours, whereas previously it would require a shutdown, scaffolding and a confined space team.

Imaging was recorded to benchmark future inspections and provide material for further desktop evaluation. Equipment was transportable and quickly deployable.

Due to the successful performance of the inspection our client was able to make informed assessments regarding the structural integrity of the asset and extend the operational life of the DWAS bin. This allows a process critical asset to remain in operational service and the CAPEX budget to be better utilised within the business.



Savings / Benefits

Time – The drone was safely and quickly deployed achieving the desired outcomes within a few hours.

Safety – No people were required to enter the confined space. No requirement for expensive scaffolding. Down time of the asset was kept to a minimum.

Evaluation – The structural engineer was able to direct the drone to points of interest and make technical assessments in real time.

Repeatability – By recording the flight plan, future inspections can be repeated using the same reference markers.

GNS Contact Person – Allan George

Contact person if additional information is required about this Good News Story

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Struvite was present but did not interfere with the imaging

The POWER FOX crash proof drone 21st January 2019

The drone has a diameter of 400mm weighs a total of 750grams, it has a carbon fibre crash cage which maintains horizon by use of a multi-directional gimble system. It incorporates adaptive LED light technology and can be piloted by a single person. The drone has a flight time of approximately 8mins per battery, 12 batteries were used for continuous operation.



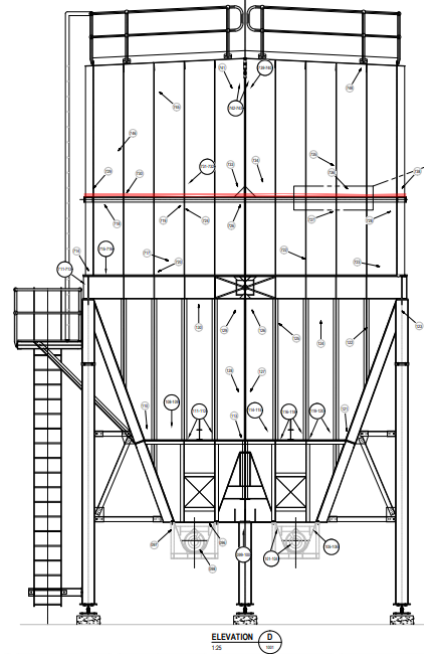
DWAS bin Oxley STP50

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Flight plan developed to capture specific point of interest



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