

## Case Study:

# LOWELL REGIONAL WASTEWATER UTILITY

## DOCUMENT

The aging Duck Island Waste Water Treatment Facility Sludge Handling Building was in need of improvement but did not have accurate “as-built” plans to work from. Utilizing 3D Laser Scanning for documentation of the existing infrastructure and building, the LandTech team completed a full laser scan of the building, infrastructure and equipment in one day.



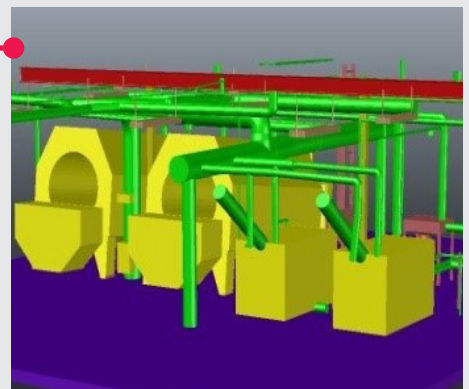
## DESIGN

Laser scanning, with capture rates of up to 1 million data points per second, allowed LandTech to collect all the required data points in 3D to create a point cloud and model identifying accurate documentation of existing conditions. Conflicts of existing infrastructure and equipment with new design parameters were readily identified for resolution prior to construction.



## DEVELOP

The newly created set of plans and models provided the team with the information needed to make critical decisions regarding the reconstruction and equipment replacement of the facility. Accurate dimensioning allowed for prefabrication, resulting in minimal downtime of the on-line facility. The project was completed ahead of schedule without any change orders due to inaccurate measurements or infrastructure conflicts.



*LandTech conducted the survey in one day and quickly delivered detailed 2D & 3D AutoCAD generated documents that took the guesswork out of the improvement project and enabled my teams to effectively determine necessary design changes and equipment replacement needs. We were able to bring the facility up-to-date both on time and on budget. We will partner again with LandTech as we continue to rollout the improvement project throughout the LRWWU.*

*- Mark Young, Executive Director*