

Project Status Report: CEEEn-2016CPST- : 006 - Pressure Zone Analysis (JUB Engineers)

Team Members: Michael Freeman, Spencer Stanley, & Ryan Harwell

Date: 3/31/2017

<div> <div>1) Summary of technical/non-technical challenges encountered</div> <div> <div>a) Communicating expectations and new information to team members</div> <div>b) Determining viable new tank locations and optimizing current ones</div> <div>c) Finding energy cost of each model</div> <div>d) Determining which tank option is the best solution</div> </div> </div>	<div> <div>2) Team approaches/resolutions to overcome challenges</div> <div> <div>a) Team members ask more frequently of what has been learned and what’s been worked on, what needs to be worked on</div> <div>b) Decided to try other locations and use unlikely but probable solutions to make them work, i.e.. water tower instead of a ground tank</div> <div>c) Some research revealed that EPANet can do an energy cost analysis of the model based on kw hours and efficiency of the pumps</div> <div>d) Observed a huge difference in cost between two water tanks, did some research on that location and found it was in an area that is potentially going to be developed anyway</div> </div> </div>
<div> <div>3) Status of challenge resolutions & potential project impacts</div> <div> <div>a) Communication is still a struggle but is a little better - expectations are communicated much more efficiently than before</div> <div>b) A new and cheaper working model has been found and analyzed</div> <div>c) Found an energy cost for each model related to pump usage– however, a cost relating to PRV use cannot be determined from EPANet</div> <div>d) Chose a best option and run additional trials to optimize it</div> </div> </div>	<div> <div>4) Project Status & Summary</div> <div> <div>a) All modeling has been completed – Four working models</div> <div>b) Cost analysis of each model has been completed – best model \$200,000 less than others</div> <div>c) Final report is nearing completion (80% complete)</div> <div>d) Poster is nearing completion (80% complete)</div> <div>e) Final presentation is nearing completion (70% complete)</div> </div> </div>