# **BYU** | CIVIL & ENVIRONMENTAL ENGINEERING

### **IRA A. FULTON COLLEGE**

Report Date: 11-19-2018

CARSTONE

**Project Status Report: CEEn-2018CPST-015** 

**Team Members: Nate Lant, Matt Strong, Cody Irons, Byron Yates** 

Project Title: UTA WAV

#### 1) Summary of technical/non-technical challenges encountered

- We were tasked with creating a cost-analysis equation to show cost-per-mile.
- UTA asked for an executive summary discussing the cost-analysis equation.
- Many of the variables of the equation are based on assumptions
  - VMT
  - MPG
  - Fuel Price
  - Operation hours
  - Operation days

#### 2) Team approaches & resolutions to overcome challenges

- We developed an Excel spreadsheet that is flexible and can change based on these variable inputs.
- We used good data and reasonable assumptions for the variables we don't know to get a somewhat accurate first-iteration analysis.
- The executive summary was completed.

#### 3) Status of challenge resolutions & potential project impact

- A working version of the spreadsheet operates smoothly.
- There is a minor bug that needs to be resolved.

## 4) Project status & summary

- PDF Version of executive summary was completed and submitted to UTA.
- The cost-analysis spreadsheet was submitted to UTA.
- We will be having a conference call with client today to discuss next steps and objectives of the project.

11/20/2018