BYU CIVIL & ENVIRONMENTAL ENGINEERING

IRA A. FULTON COLLEGE

CAPSTONE

Report Date: 4 March 2019

Project Status Report: CEEn-2018CPST-007

Team Members: Ryan Smart, Nicole Hastings, Hanna Opdahl, Daniel Fiso

Project Title: Woodland Hills Snow-Runoff Drainage Options

1) Summary of technical/non-technical challenges encountered

This week our primary task was to acquire channel slopes for locations of interest in each of the drainage basins where flooding is prevalent. Originally, we planned to collect slopes through field work. However, due to scheduling conflicts, we were unable to find a time to go out to collect slopes. Other technical difficulties included reformatting the GIS map. We wanted to consolidate the map, eliminating unneeded GIS shapefiles from previous drafts, however there was some difficulty in revising the map and rerouting the source data.

2) Team approaches & resolutions to overcome challenges

After exploring various sources for slope measurements, we were able to collect LiDAR point clouds in LAS format from Utah AGRC collected in 2013-2014. These will provide channel slopes of the 10 locations that were identified previously as flooding prone areas. After communication with our mentor and trial and error, we were able to finalize the map and organize it into a format for our client.

3) Status of challenge resolutions & potential project impact

We are working to collect all relevant inputs to begin running culvert and channel simulations. We still need to finalize slopes and collect roadway data from the other capstone team. We had hoped to find these measurements last week, but with the block time set aside on Saturday, we should be back on schedule.

4) Project status & summary

 Once the data mentioned in number 3 are collected, we will meet Saturday, March 9th to generate first draft culvert and channel designs. This block time will allow our team to progress through stage 2 and into stage 3 to begin drafting design drawings.

<u>Please enter # of hours spent on project this last week for each team member in the order listed above</u>

3/18/2019 Member #1: 3.5 Member #2: 4.0 Member #1: 1.5 Member #2: 5.0