Project Status Report: CEEn-2016CPST-004: Engineering Changes vs. Neighborhood Impact Assessment

Team Members: BMK Engineers

Date: February 27, 2017

1) Summary of technical/non-technical challenges encountered

- Synchro modeling has a steep learning curve. None of the members of the team had any prior Synchro experience. Designing and interpreting results was time confusing and challenging.
- Although the City of Orem's Transportation department provided us with some data for volumes, traffic counts did not exist for all intersections that we needed to model.
- There were still some scheduling conflicts between team members. However, these conflicts were easily resolved and had less impact than January.

2) Team approaches/resolutions to overcome challenges

- With the help of Dr. Saito, our team project faculty advisor, we were able to learn the basics of Synchro modeling.
- A majority of the intersection models were taken from the City of Orem department of transportation. This allowed us to understand the volumes along the corridor. This data also helped to optimize the signal timing at the proposed signalized intersection (400 N 800 E). These models allowed more time for us to analyze our results.
- The different Synchro model types were split up between group members. This allowed us to resolve challenges regarding available times to meet. It also allowed each member to focus on obtaining more accurate results.
- As previously discussed, open communication was crucial in solving the issues with team scheduling. The conflicts were resolved during discussion.

3) Status of challenge resolutions & potential project impacts

- There were some schedule delays during modeling because of the team's unfamiliarity with the program. However, with Dr. Saito's help, each member has become efficient with the software.
- Synchro modeling is now on schedule. March will probably include more work hours than February due to the finalization of analysis and modeling.

4) Project Status & Summary

- The project is on schedule. February's goal was to complete the majority of the modeling and analysis of the 800 east corridor.
- We failed to complete the design analysis for future volumes. Originally we wanted to model the projected 2040 traffic volumes this month. This will be done in the upcoming week. It will not put us far behind schedule though because the models have already been created and each team member is familiar with Synchro now.
- The largest portions remaining for the project are the feasibility analysis and neighborhood impact analysis.