

## QUARTERLY PROGRESS REPORT

Fiscal Year 2015/2016 , Quarter 2nd

Caltrans Task Manager: Harold Hunt Task ID/Project ID (for Caltrans use only):

Task Order No.: TO 19

Contract No.: 65A0529

1. Task Title: Potential Greenhouse Gas Emission Reductions from Optimizing Urban Transit Networks
2. Describe last quarter's tasks/deliverables:

The third quarter of our project runs from October 1 to December 31, 2015, which corresponds to the 2<sup>nd</sup> quarter of the 2015-16 fiscal year.

We finished Task 2 (Model Extensions) and submitted a paper to a technical journal describing the results of our research in Tasks 1 and 2. Curves showing the relationships between GHG emissions and user travel time were developed for a range of hypothetical cities, of varying sizes, demand densities and elasticities, and for four different trunk technologies (bus, BRT, LRT and Metro). Both the transit agency emissions constraint and city-wide emissions constraints are studied and discussed in the paper.

This paper is the deliverable due at the end of this quarter.

3. Describe next quarter's tasks/deliverables and their due dates:

Finish working on Task 3 (Case Study). We have finished the initial application of our methodology to the MUNI bus network for the city of San Francisco. The model will be improved in the next quarter to account for more transit network details. The discussion on the case study will be made in the final report.

4. Describe Project Status:

- Are you on time with your schedule?

YES  
 NO

- Are you on budget?

YES  
 NO

- Are you on scope?

YES  
 NO

If the answer to any of the above is NO, please explain below:



5.     Estimated percent of work completed:       75%  
        Estimated percent of budget expended:     67%
  
6.     What are your expenditure projections for the next four quarters or until the project's end?

FY 15/16; Q1	FY 15/16; Q2	FY 15/16; Q3	FY 16/17; Q4
\$ 30	\$ 20	\$ 17	\$ 33



Use this area for any additional information. Clearly identify which Section this information applies to.

Submitted By: Samer Madanat

Date: January 22, 2016