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PROJECT OVERVIEW REPORT

1. Center Identifying Number
   FRP-RU1661
2. Project Title
   Estimating Network-Wide Emissions with Macroscopic Traffic Models
3. Principal Investigator
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5. Project Description
   The project will begin the investigation of the ways that traffic variables relate to vehicle emissions. Once it is clear which traffic variables are the most important to predict accurately, the relevant macroscopic relationships can be developed to obtain them directly. The team will construct a microscopic traffic simulation experiment which will produce traffic performance metrics that become inputs for the emissions models. After using the models to extract relevant data, the team will look at the aggregate relationships between network level parameters and emissions rates.
6. Dates and Budget
   Start date: 01/01/2012
   End date: 12/31/2012
   Total Dollars: $24,000
7. Keywords
   Traffic Modeling, Vehicle Emissions, Macroscopic Modeling, Sustainability, Network Designs, Traffic Control Strategies