IntelliDrive^{SM} Pooled Fund Study

Program to Support the Development and Deployment of Infrastructure IntelliDrive^{SM} Applications

University of Virginia Center for Transportation Studies

Progress Report
January 2010

Project Activities/Progress

Project Management

1. *Proposals Received*

   - In response to the RFPs for two Year 1 applications, i.e. Pavement Maintenance Support Application (PMSA) and Signal Phase and Timing (SPAT) Data Application, 13 proposals – six for PMSA and seven for SPAT – were received by January 15, 2010.

2. *Evaluation by the Pooled Fund Study Review Panel*

   - Received proposals along with evaluation sheets were distributed to the review panel consisting of one representative from each of the pooled fund study members, AASHTO and the pooled fund study management team.
   - Written evaluations including scores and comments were received from the review panel by January 26, 2010.
   - The management team then summarized the scores for the final selection.
   - Finally, all the results were forwarded to the procurement services to finalize the selection and to initiate the contract.

IntelliDrive^{SM} Traffic Signal Algorithms

1. *Current Activity Synthesis*

   - The project team identified and studied several projects and research activities to familiarize themselves with the latest research.
   - Specifics topics covered developments on the SAE message set standards, University of Arizona's emergency vehicle crash avoidance application, and University of Texas's autonomous vehicles control at intersections.

2. *Literature Review*

- Started literature review and brainstorming for potential IntelliDrive-based signal system applications.
- Four specific applications have been selected for further consideration and investigation:
    - (1) Platoon formation through known vehicle location information, and platoon progression
    - (2) Oversaturated conditions when links overflow and disrupt traffic flow at upstream intersections
    - (3) Advanced dynamic lane marking and geometry changes through I2V communication
    - (4) Network optimization, given the new IntelliDrive data.

Project Status

The project is on schedule. The selection process for the contractors will be finalized in February after conducting negotiations on the proposed scope and budget. The project team will start to develop and implement signal systems algorithms in the simulation test bed.

Invoice Notes

None