

# California DOT- Traffic Operations

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**Agreement 74A1119**

## **Improve Traffic Census and Highway Performance Monitoring Programs**



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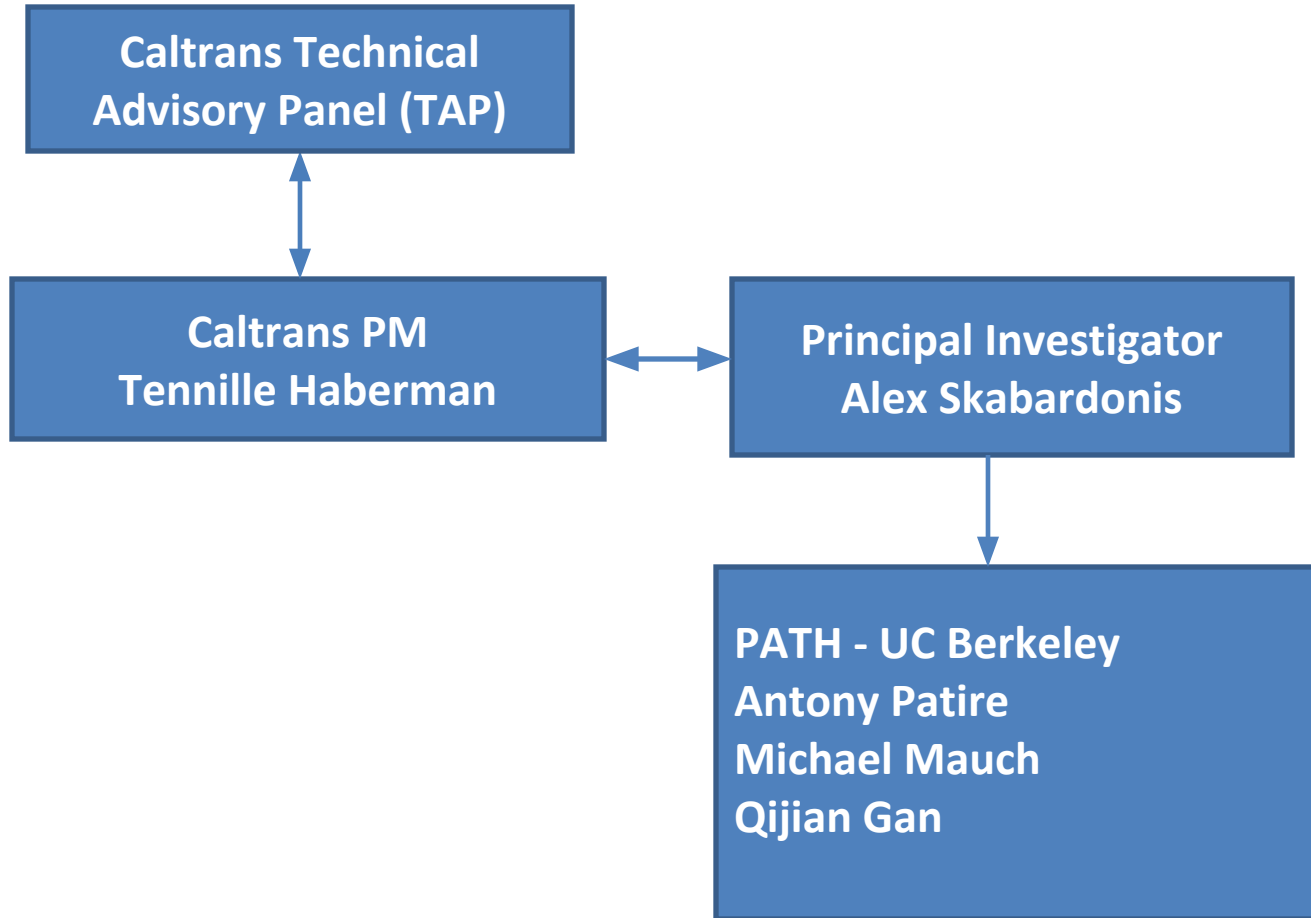
**Project Kick-off Meeting**

**Sacramento, CA**

**June 17, 2019**

# Research Team

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# Project Statement / Project Objectives

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- **Current and accurate traffic data on most California state highways are required to satisfy FHWA reporting requirements, conduct operational and safety analyses, and develop and evaluate congestion management strategies**
- **Support the traffic Census and HCMS programs in Identifying locations for traffic data collection on the state highway system based on FHWA requirements**
- **Determine a sampling method to collect the Annual Average Daily Traffic (ADT) to produce VMT estimates on all public roads that fulfill HPMS requirements**

# Project Tasks, Schedule & Deliverables

**Project Duration: 12 months**  
**Project Start: June 15, 2019**

Figure 1. PROPOSED PROJECT TIMELINE & SCHEDULE (12 MONTHS)

| Task # | Project Deliverables/Tasks   | Project Month |           |           |           |           |           |           |           |           |           |           |           |
|--------|--|---------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|        |  | 15-Jun-19     | 15-Jul-19 | 15-Aug-19 | 15-Sep-19 | 15-Oct-19 | 15-Nov-19 | 15-Dec-19 | 15-Jan-20 | 15-Feb-20 | 15-Mar-20 | 15-Apr-20 | 15-May-20 |
| 1      | Project Kick-Off<br><i>Deliverable 1: Kick-Off Meeting</i>   | ◆             |           |           |           |           |           |           |           |           |           |           |           |
| 2      | Project Management<br><i>Deliverable 2: Quarterly Progress Reports</i>   |               |           | ■         |           | ■         |           |           | ■         |           |           |           | ■         |
| 3      | Needs Assessment & Data Analysis<br><i>Deliverable 3: Technical Memo/Needs &amp; Requirements</i>                  |               |           |           | ■         | ■         | ■         | ◆         |           |           |           |           |           |
| 4      | Emerging Data Collection Technologies<br><i>Deliverable 4: Technical Memo/Recommendations for New Technologies</i> |               |           |           |           |           |           |           | ■         | ■         |           |           |           |
| 5      | Draft Final Report<br><i>Deliverable 5: Project Draft Final Report</i>   |               |           |           |           |           |           |           | ■         | ■         | ■         |           | ◆         |
| 6      | Final Report & Workshop<br><i>Deliverable 6: Project Final Report &amp; Workshop to Caltrans Staff</i>             |               |           |           |           |           |           |           |           |           |           |           | ■         |

# Task 3. Needs Assessment & Data Analysis

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- **Analysis of Existing Traffic Census and HPMS Count Locations**
- **Analysis of Existing Traffic Census and HPMS count schedules**
- **Revised Statewide Traffic Census Count Location Maps**
- **Approach**
  - **Need comprehensive and reliable data for the evaluation of census and HPMS count**
  - **Use Arcadia arterial network as case study/ground truth**
  - **Supplement with commercial data sources (*Street Light*)**
  - **Accuracy Assessment of HPMS traffic counts**
  - **Recommendations of HPMS count schedules for different road types**

# Task 4. Emerging Data Collection Technologies

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- **Identify Commercially Available Traffic Count Technologies**
- **Costs, Application lessons Learned**
- **Suitability to Caltrans Census and HPMS Reporting Requirements**

## ■ **Approach**

- **Detectors for Freeway Surveillance (PeMS)**
- **Detectors for Signal Traffic Control (High resolution, Utah DOT)**
- **Other Sources (Bluetooth, probes, other)**

# Tasks 5&6: Reporting

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- **Task 5. Draft Final Report**
  - Detailed description of the work performed
  - Recommendations
- **Task 6. Final Report and Workshop**
  - Revised Draft Final Report per Caltrans TAP comments
  - Workshop for Caltrans Staff