

# Sacramento and Phantom Auto R&D Partnership

Bringing Phantom Auto's remote teleoperation solution to the streets of Sacramento

March 16, 2018

## Purpose and goals

- Assess the feasibility of launching a driverless service in Sacramento
- Partner with the city and partners through ATOS to promote Sacramento as a prime location to test and deploy autonomous vehicles
- Collaborate with the city and partners to explore potential future service models that best serve the needs of the city and its partners
- Announce and promote this partnership to bring driverless vehicles to the streets of Sacramento

## Overview

Phantom will use the \$100,000 in funds provided by Sacramento and its partners toward the cost of dedicating significant time and resources over a 6 month period to assessing the feasibility of launching a service in Sacramento. This step, which includes network mapping and assessing other variables of operating areas, is necessary for any larger future deployment in the city, and it is a required step for each of Phantom's engagements. Phantom has not mapped the city yet apart from the short route for the Kings event, and it takes significant time, money, and resources for us to do this assessment. As part of and in addition to this network mapping process, Phantom will operate a vehicle on the streets of Sacramento during this assessment phase.

Phantom would also dedicate business resources to explore further and deeper collaboration with the city of Sacramento, including participating in ATOS efforts to potentially attract more AV companies to Sacramento. The overarching goal for Phantom and all parties involved will be to lay the foundation for a long-term partnership with the city, enabling driverless services that fit the needs of the city and its partners.

## Budget Breakdown

| Duration of R&D Phase: 6 months   |                  |  |
|---|------------------|--|
| Monthly Cost  | What's included? |  |
| <b>Hardware</b>   |                  |  |
| Development Vehicle & Operator Console  | \$15,000         | Routine maintenance and system enhancements  |
| <b>Mapping and Testing</b>  |                  |  |
| In-Vehicle Operator   | \$10,000         | Hands-on vehicle and system maintenance, planning and directing routes to be navigated           |
| Remote Operator   | \$12,500         | Driving the vehicle remotely and collecting data   |
| Travel and expenses   | \$5,000          | Routine travel (4 hours round-trip) from Mountain View headquarters to Sacramento                |
| <b>Data Aggregation and Analysis</b>  |                  |  |
| Dedicated Engineer  | \$17,500         | Aggregating, analyzing, and producing reports on operational feasibility for areas in Sacramento |
| <b>TOTAL COST</b>   | <b>\$360,000</b> |  |
| Not priced: Executive & business team time spent working with city to promote Sacramento & design future service that fits city/partner needs, etc. |                  |  |