



SUSTAINABLE
SILICON VALLEY

Dumbarton Mobility Alliance
Facilitated Collaboration to Real-World Action
In San Mateo and Santa Clara Counties

Jennifer Thompson
Executive Director



Mission

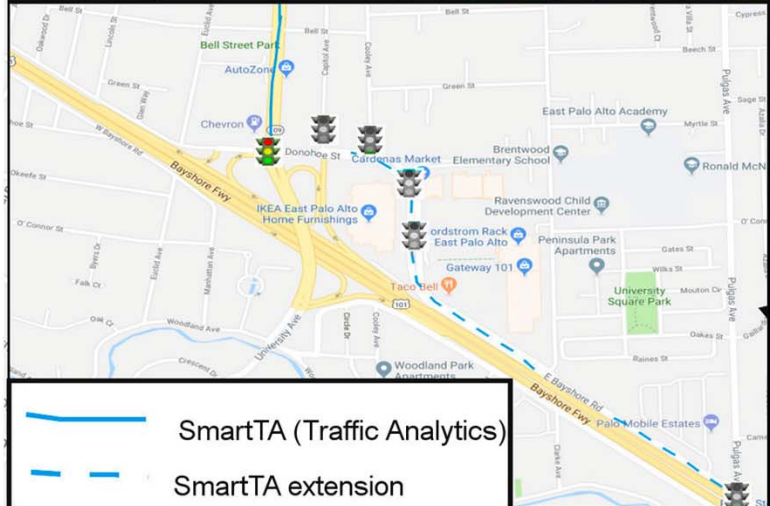
Sustainable Silicon Valley (SSV) is a nonprofit organization dedicated to creating collaborative solutions to the toughest sustainability challenges in the Bay Area.



SSV Members



Sustainable Mobility Projects



— SmartTA (Traffic Analytics)
 - - - SmartTA extension

— Optimising Urban Traffic, Menlo Park
 — SmartTA (Traffic Analytics), East Palo Alto

Project Partners & Associates

Public/Private Partnership– Key to Success

- C/CAG
- City of Menlo Park
- City of East Palo Alto
- Caltrans
- Urban Integrated (Technology partner based in Germany and Smart 50 Awards winner)
- Kimley-Horn (KITS signal system software)
- Bay Area Air Quality Management District (BAAQMD)
- Greenaction (Community based organization)

SmartTA (Traffic Analytics)– East Palo Alto

Pilot Project in East Palo Alto

- East Palo Alto is a primary traffic artery in Silicon Valley
- Air quality is important to East Palo Alto residents since many kids have asthma
- Establish a correlation between vehicle traffic and air quality
- SmartTA will connect to existing traffic systems, collect & explore Big Data, visualize

SmartTA (Traffic Analytics)– Air Quality Sensors

Types of Sensors

- Gas Sensors: Vaisala – NO₂, SO₂ CO, O₃, temp, pressure, humidity
- Particle Sensors: PurpleAir– PM 2.5

Impact of New Technology

- Relative measurements rather than absolute

Requirements

- Location for Sensors
- Power – Wall power (not solar or battery)
- Communications – Cellular (more reliable than Wifi)
- Siting– Upwind & downwind



Prototype

Optimizing Urban Traffic (OUT)– Menlo Park

Pilot Project in Menlo Park

- Leverage and extend SmartTA effort utilizing similar technology
- Leverage Smart Corridor equipment including signal controllers and fiber optic communications
- Introduce a traffic light assistant app which Urban Integrated has deployed in Darmstadt, Germany
- UI platform collect data from roads and intersections, analyze the data, and send real time guidance to test drivers' smart phone

Dumbarton Mobility Alliance

Overview

- Sustainable Silicon Valley is launching the **Dumbarton Mobility Alliance** to foster cross-sector collaboration and promote the *renowned spirit of Silicon Valley innovation* to address the number one regional issue-- traffic
- This area represents one of Silicon Valley's most challenging transit interchanges
- SSV's approach is to promote cross-sector collaboration while taking full advantage of new and existing systems, technology, and policy solutions

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Other Initiatives

SSV is aware of other initiatives working in the area:

- Cross Bay Partnership-- SamTrans and Facebook
- Dumbarton Forward-- MTC
- Local groups such as Dumbarton Corridor Coalition

SSV does not want to duplicate work or to compete with other initiatives

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SSV Approach is Unique

Once you exit the Dumbarton Bridge, the traffic spills out into two counties:

- San Mateo County
- Santa Clara County

The two counties are adjacent together and could be working together

Counties could:

- Think together
- Brainstorm together
- Plan for the future together
- Find solutions together

Solutions must be multifaceted

- There is not a silver bullet solution

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Building on Lessons Learned

- Build on and expand lessons learned from SmartTA and OUT
- Seek new innovations we may be looking at to implement in the Dumbarton area
 - Address cut through traffic
 - Utilization of excess capacity on private bus services
 - Syncing of schedules between public and private services
 - Integration of bike and car sharing on a single transit platform
 - Explore congestion pricing on arterials (University Ave.)
 - Air quality impacts
 - High density truck/traffic diversions
- To start with, Dumbarton Mobility Alliance will focus on East Palo Alto and University Ave which leads directly into Palo Alto and Santa Clara County

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- **Next Steps**

- SSV will be reaching out to other stakeholders
- What is your feedback?
- How can the concept be improved upon so that it stand out from other efforts?
- Would C/CAG be interested in participating?



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Contact

Jennifer Thompson
Executive Director
Sustainable Silicon Valley
Email: Jthompson@sustainableSV.org
Cell: (415) 595-6642