Action Plan for Automated Vehicle Deployment Excellence in City of SeaTac, WA Excerpts – Summary TPW Committee, April 23, 2018

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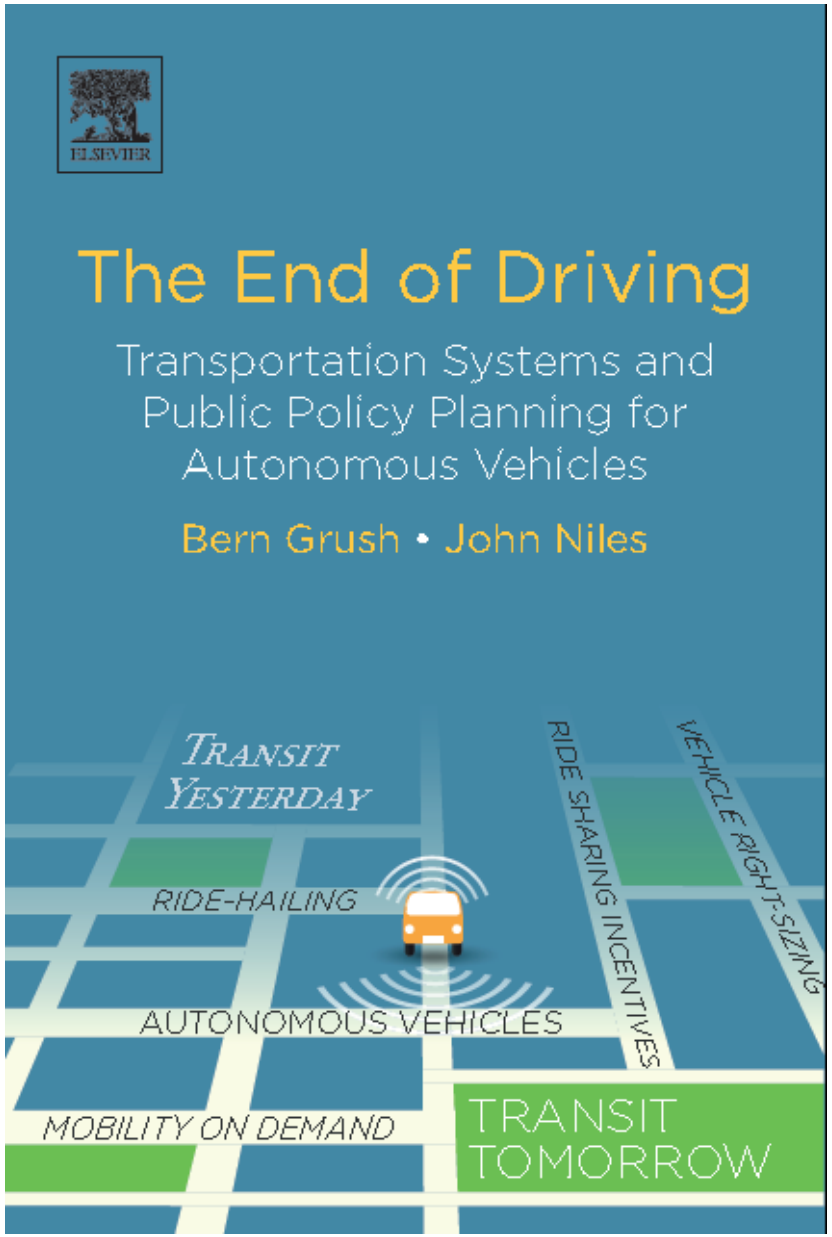
No City of SeaTac Policies and No City Decisions are Shown in This Document

Forthcoming university text book from City of SeaTac's consultant John Niles

Entire book provides the rationale for the City of SeaTac decision to undertake the project with CATES.

Chapter 11 describes the existence of the City of SeaTac project and the reason for CATES recommending the automated micro-transit deployment serving residential neighborhoods.



How City of SeaTac Can Become a Vehicle Automation Center of Municipal Excellence

- To attract private sector automated vehicle developers to the opportunity of deploying a driverless ride service in City of SeaTac, the City should proceed to design a pilot deployment of an automated, electric, on-demand micro-transit operating service as specified in the CATES recommended Action Plan.
- City Decision: Go or No Go toward justifying self-declared status as Center of Excellence in Vehicle Automation?

Benefits of Going Forward

- More community engagement in a high-tech future
- Demonstrated City pursuit of enhanced mobility for all citizens, voters, and taxpayers
- Demonstrated official interest in mobility support for non-driver citizens both young and old
- New positive engagement with King County Metro, Sound Transit, and Puget Sound Regional Council
- Demonstrated regional and national transportation improvement leadership
- Further engagement with national organizations like National League of Cities and Aspen/Bloomberg Autonomous Vehicle in Cities
- Some new local employment opportunities if the pilot project proceeds
- Enhanced civic pride from pursuing public service technology applications
- Positions the City for attracting other private sector initiatives related to vehicle automation

Recommended First GO Step: Resolution of Intent from SeaTac City Council

WHEREAS, the City Council has funded and embraced the development of an Action Plan document with specific steps to …

NOW THEREFORE, the City Council of SeaTac, Washington hereby declares itself a Center of Municipal Excellence in Automated Vehicle Policy Development because of taking the initiative in 2017 to begin planning for automated vehicle deployment in the City.

Three further action level options in the Resolution Actions that could be taken:

Level One: Work actively to move the findings and recommendations of the Action Plan into the deliberations of the new State AV Working Group.

Level Two: Study further a pilot deployment of an automated vehicle ride service in City of SeaTac, in cooperation with King County Metro.

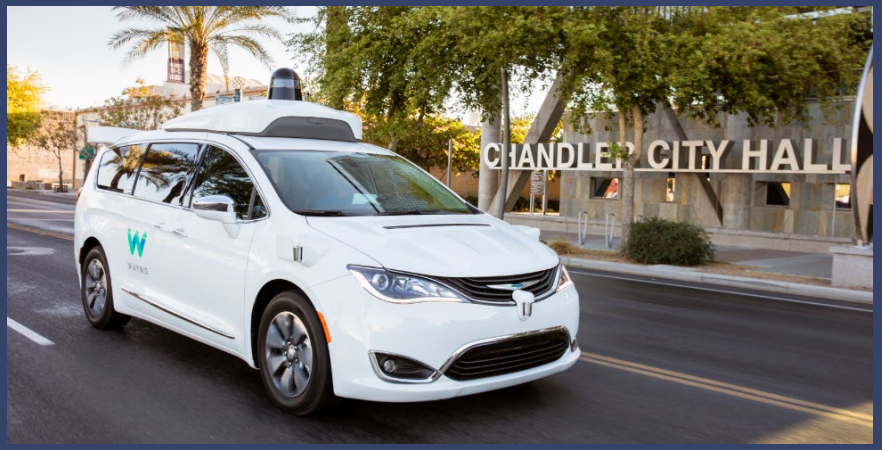
Level Three: Aggressively pursue implementation of an automated vehicle ride service pilot deployment within the City. Go after funding in partnership with City of Bellevue and/or King County Metro.

Thank You! Any Questions?

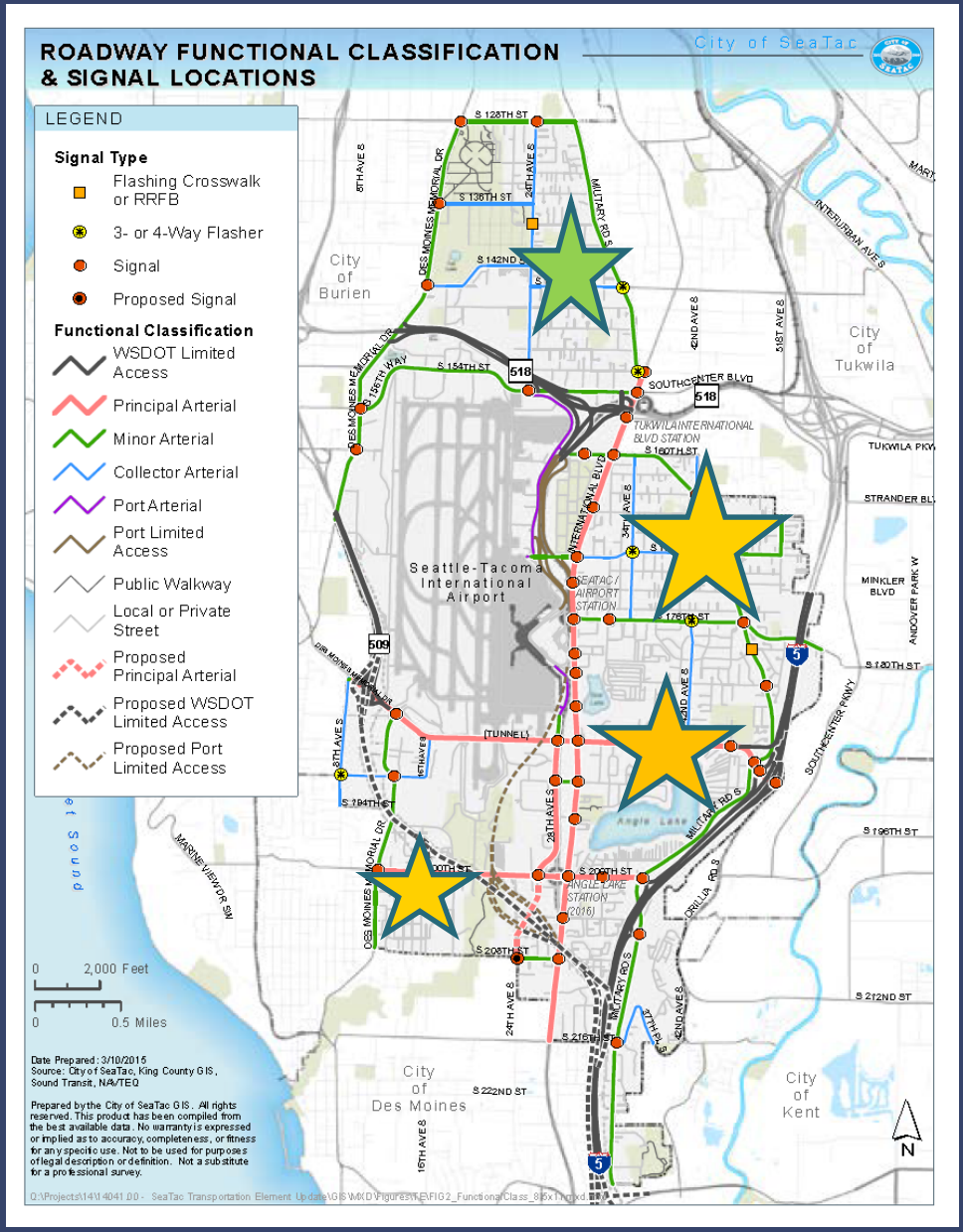
Framework:
Two Paths for Vehicle Automation Now Apparent

Market 1: Consumers Buy Better, Safer Vehicles Evolving with Selectable Automated Driver Assistance Systems – ADAS and fuller automation eventually in selected environments

Market 2: Consumers Purchase Rides on Driver-less Vehicles Providing Mobility as a Service (MaaS), aka micro-transit or robo-taxis. Starts in defined routes and area, and evolves eventually to be like Uber or Lyft without a driver.



Option Three: City of SeaTac Seeks Funds to Deploy Electric Automated Shuttle Routes Serving Residential Areas

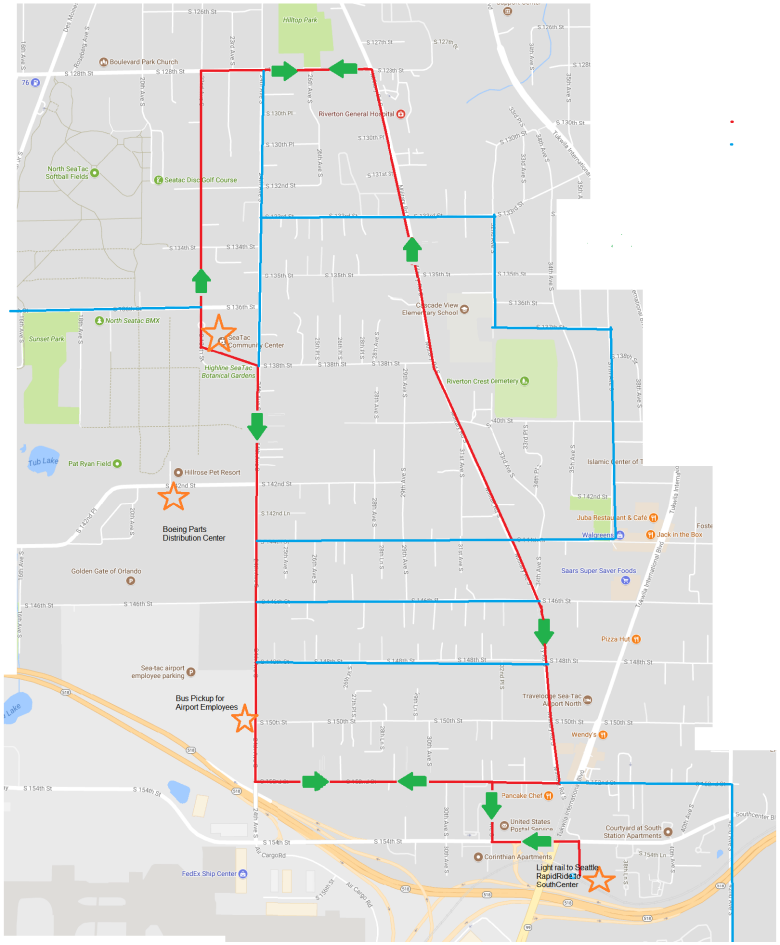


Market 2 Opportunity for City of SeaTac: Taking a Leap with Automated Micro-Transit

- Purposely designed, wheelchair compatible, electric passenger vehicles with no driver
- On pre-selected, adapted, certified, existing roads
- Closely monitored & supervised fleet
- Trials already underway world wide

Candidate First Automated Micro Transit Trial Deployment: Riverton Heights

Five mile loop route (red line on map) for automated 10 passenger automated electric micro buses at five minute intervals in both directions could serve passenger movement at 20 mph with 6 vehicles. These would provide total capacity of 480 passengers per hour if average trip length were 2.5 miles (half the loop). The Tukwila light rail station, the SeaTac Senior center, and two main employment sites would be served. High volume of usage not certain based on data. Blue lines show possibilities for future automated on-demand branching.



Best Potential Funding Source FHWA ATCMTD grants

Oct. 2017: "Federal Highway Administration (FHWA) has awarded Advanced Transportation and Congestion Management Technologies Deployment (ATCMTD) grants valued at $53.6 million for 10 states to fund advanced technologies that will improve mobility and safety for drivers…"

2016 Winner: $11 Million Grant to County & City of San Francisco including support of a passenger shuttle around Treasure Island & Yerba Buena Island.

2017 Winner: $4 Million Grant to South Carolina's Greenville County for Automated Taxi Shuttles. CATES has close contacts on this project team.

2018 Target: Apply for funding for City of SeaTac deployment of automated neighborhood shuttle deployment . A joint application with City of Bellevue and/or King County Metro recommended.

City Supports Puget Sound Regional Council Transportation Plan on Automation

- Here is the first listed highlight of the PSRC 2040 Transportation Plan Update:
- "A new regional approach to getting ready for autonomous, connected, shared and electric vehicles."
- Specifically, using PSRC's summary of Appendix N on technology:
  - Establish a technology advisory committee, with diverse stakeholders, to help the region prepare for and foster emerging technologies. Topics to explore include legal frameworks, liability issues, and technical specifications to support new technologies.
  - Update the region's ITS Implementation Plan (RITSIP) to better reflect existing conditions, current needs, and projected changes due to emerging technologies.
  - Continue to enhance regional models to analyze the effect of autonomous and electric vehicles, shared mobility, and new technology on the transportation system and travel behavior.
  - Facilitate regional discussions to identify opportunities to support private sector projects and partnerships and the deployment of pilot programs

Coordination Required to Proceed

- City of SeaTac Public Works needs to keep the following agencies informed on plans to implement the Riverton Microtransit Pilot
  - King County Metro Transit (for integration with other transit services for which it has a monopoly charter)
  - Sound Transit (for access to the light rail station)
  - Puget Sound Regional Council (for authorization as transportation service eligible for government funding)
  - State of Washington Department of Licensing
  - SeaTac Police Department
  - State of Washington's Automation Task Force
  - Port of Seattle (for access to a vehicle stop near the employee parking lot)
  - Boeing Parts Distribution Center (for service access at a vehicle stop near NE pedestrian gate)

Contact Points

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