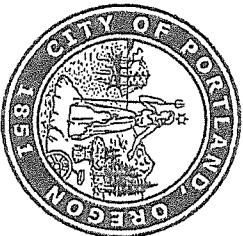


City of

Portland, Oregon

Dan Saltzman, Commissioner
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Ted Wheeler, Mayor
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April 19, 2017

TO: Leah Treat
Director, Portland Bureau of Transportation

FROM: Mayor Ted Wheeler
Dan Saltzman, Commissioner-in-Charge of Transportation

RE: Launching Portland's Smart Autonomous Vehicles Initiative

Portland is one of the world's leading cities partnering with the private and university sectors in developing innovative technology solutions that improve our quality of life. We believe Portland should do this again by developing best practices for testing autonomous vehicles (AVs). Portland can show how to "do AV right" by working with transportation providers and the public to implement testing and piloting of this technology, while advancing public safety, protection of the environment and transportation access for everyone, regardless of income. With the right policies and protections in place, we believe autonomous vehicles should be tested in Portland in 2017.

Autonomous vehicles have the potential to be a truly transformative technology. They could benefit our communities by reducing crashes, improving first and last mile connections for public transit riders, and reducing the high cost of owning a private vehicle. They also have the potential to significantly increase traffic congestion, vehicle miles traveled, and climate pollution. The protections and rules of the road adopted by state and local governments will substantially determine how much benefit and how much burden we experience.

It is also important that cities provide clear leadership as AV technology is tested and piloted before widespread use. AVs operating on city streets with pedestrians, people in wheelchairs, and bicyclists pose different challenges than AVs operating on open stretches of I-5 and I-84. Local streets must continue to be managed by the local agencies which know them best.

In order to ensure that autonomous vehicles work with and for Portlanders, we are directing the Portland Bureau of Transportation (PBOT) to launch the Smart Autonomous Vehicles Initiative (SAVI). This initiative formally invites technology innovators to work with the city to ensure new transportation technologies advance our safety, equity, climate, and job goals.

Portland's SAVI should:

- Spur innovation and guide this emerging transportation technology to serve community goals;
- Show how autonomous vehicles can advance our Vision Zero goal to eliminate all traffic deaths and serious injuries by 2025. AVs must show that they can and will drive at safe speeds and stop for pedestrians, bicyclists, disabled people, emergency vehicles, red light, and stop signs.
- Prioritize fleet autonomous vehicles that are electric and shared. Shared electric autonomous vehicles are most likely to reduce congestion, climate pollution, and travel costs for low and moderate income Portlanders;
- Establish a clear permitting process for public or private sector partners to apply to PBOT to test autonomous vehicles at specific times, in specific locations, in Portland;
- Encourage testing new technologies to benefit low and moderate income Portlanders and high value trips like public transit and freight.


Therefore, we are directing PBOT to take four actions to advance SAVI within the next 60 days:

1. Propose for City Council and public consideration Interim Transportation System Plan (TSP) policies that ensure connected and autonomous vehicles will serve Portland's safety, equity, climate change, and economic goals;
2. Publish a Request for Information (RFI) that invites AV testing specific to advancing safety, equity, climate, and economic goals;
3. Adopt an Interim Administrative Rule that provides a clear path to permit innovators to apply to test, pilot or deploy AVs in Portland; and
4. Develop public engagement, reporting, and evaluation plans that ensure Portland residents, workers, and businesses have opportunities to shape the "rules of the road" for AVs in Portland.

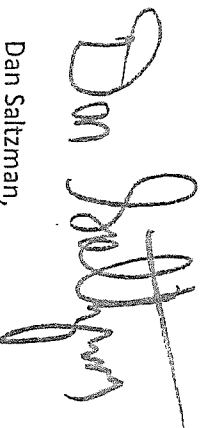
We also recognize the importance of partnering with state, regional, and local authorities to establish a phase-in process to learn from testing autonomous vehicles before widespread deployment. In a letter on March 29, 2017, Portland requested our state legislators use five principles to evaluate and shape state autonomous vehicle legislation. We suggest starting with a state, regional, and local agency work group to evaluate and recommend state autonomous vehicle policies and protections to the 2018 legislature.

We have a choice to be passive and let autonomous vehicles happen to us, or take the initiative and make them work for us. Portland will make AVs work for us.

Sincerely,



Ted Wheeler,
Mayor



Dan Saltzman,
Commissioner

Draft Interim Administrative Rule for Smart Autonomous Vehicle Initiative - Testing

1. Purpose

This rule regulates Autonomous Vehicles (AVs) in the city of Portland. The operation of an automated vehicle (AV) and connection to City infrastructure are privileges, not rights. For an AV rated at Level 3 (as that term is defined in this rule) above to operate in the City of Portland, the AV company must obtain a permit. AV companies must certify to the City of Portland that all vehicles and operators have met all certifications and operating requirements. Failure to comply with the applicable City Code provisions and this administrative rule is subject to an assessment of civil penalties by the Director of the Bureau of Transportation.

At this time, the City will only be providing permits to AV companies for testing purposes. Should personal AVs become commercially available, the Bureau of Transportation will update this rule.

2. Background

On April 19, 2017, Mayor Wheeler and Commissioner Saltzman issued a directive to Transportation Bureau Director Leah Treat to launch the Smart Autonomous Vehicle Initiative (SAVI). Understanding that this technology has the potential to transform our transportation system, PBOT was tasked with meeting this challenge head-on through four specific tasks, developing an autonomous vehicle policy, issuing an RFI, developing an interim administrative rule, and creating an outreach strategy.

SAVI is an opportunity for technology innovators to work with the City to ensure new transportation technologies advance our safety, equity, climate, and economic goals. This initiative will:

- Spur innovation and guide this emerging transportation technology to serve community goals;
- Ensure the safety of the City's residents and businesses by requiring AV providers to align with the City's Vision Zero goal to eliminate all traffic deaths and serious injuries by 2025. AVs must show that they can and will stop and yield for pedestrians, bicyclists, mobility-challenged people, emergency vehicles, red lights, and stop signs;
- Prioritize fleet autonomous vehicles that are electric and shared. Shared electric autonomous vehicles are most likely to reduce congestion, climate pollution, and travel costs for low- and moderate-income Portlanders;
- Establish a clear process for public and private sector partners to apply to PBOT to test autonomous vehicles at specific times, in specific locations, in Portland; and
- Encourage testing new technologies to benefit low- and moderate-income Portlanders and high-value trips like public transit and freight.

Compliance with this rule, applicable City Code provisions, and a current AV permit is required. This rule pertains only to the operation of vehicles and not to any required infrastructure, such as sensor technology.

3. Authority

These rules are authorized by, and implement, in relevant part, the following City Charter and Code provisions, as may be amended from time to time:

- a. City Charter section 2-105(a), which gives the City the "power and authority":
 1. To exercise within the City and City-owned property, all the powers commonly known as the police power to the same extent as the State of Oregon has or could exercise said power within said areas, and to make and enforce within said areas all necessary or appropriate . . . local, police, . . . and safety laws and regulations. . . .
 2. To secure the protection of persons and property and to provide for the . . . safety and good order of the City. . . .
 23. To regulate and control for any and every purpose the use of streets, highways, alleys, sidewalks, public thoroughfares, and public places within the City . . . , and to regulate the use of streets, roads, highways and public places for transportation or use of every description, and for installation of any kind.
 26. To control and limit traffic and classes thereof, and vehicles and classes thereof on the streets, avenues and elsewhere. . . .
- b. City Code section 3.12.010: "The Bureau of Transportation shall be charged with the responsibility for the . . . operation . . . of the transportation system The Director of Transportation shall have authority to issue administrative rules and regulations in addition to those specified in the Charter and this Code, as are appropriate to provide for the adequate functioning of the Bureau and to carry out the responsibilities under this Section."
- c. City Code section 16.10.100: "As the City's elected body, the City Council is the road authority for all public streets, except state highways, as designated by State Law. The City Council may delegate specific road authority to the City Traffic Engineer, City Engineer or Emergency Incident Commander as the Council deems appropriate."
- d. City Code section 16.10.200, which authorizes the City Traffic Engineer to:

- A. Implement ordinances, resolutions and directions of the City Council and orders of the Commissioner-In-Charge of the Bureau of Transportation by installing, removing, and altering traffic control devices.
- B. Establish, remove, or alter traffic controls
- G. Designate streets where certain classes of vehicles may not move on or over except for local access.
- N. Install temporary traffic control devices when traffic conditions constitute a danger to the public.
- O. Whenever specifically provided in the Title, the City Traffic Engineer may assess civil penalties for violations of the provisions of Title 16. The City Traffic Engineer shall adopt rules, procedures, and forms to be used in assessing such civil penalties.
- e. City Code section 16.70.610:
 - A. It is unlawful for any person or owner to drive, move, or to cause or permit to be driven or moved on any street in the City any vehicle or combination of vehicles that:
 - .. (6) Violates any . . . provisions of this Title.
 - B. Operation of any vehicle or combination of vehicles in violation of the provisions of this Chapter is prima facie evidence that the owner of the vehicle or combination caused or permitted the vehicle or combination to be so operated and the owner shall be liable for any penalties imposed pursuant to ORS 818.
 - f. City Code section 16.10.030: "Officers and reserve officers of the Portland Police Bureau are authorized to direct, redirect, limit or restrict . . . vehicular traffic on any public right of way."
 - g. City Code section 16.10.500: "The Transportation Director and/or City Council may establish fees and charges."

4. Definitions

Terms used in these rules are defined in City Code chapter 16.90 and as follows:

- a. "Autonomous Vehicle" and "AV" mean a vehicle defined as such by the Society of Automobile Engineers J3016 Standard, as may be amended from time to time and as interpreted by the City Traffic Engineer at the time of the vehicle's operation. For permitting purposes, references to AVs in this rule and the AV permit application refer to AVs at SAE level 3 and above. For ease of reference, the standard in effect at the time of the implementation of these rules follows:
 - i. Level 0 – No Automation: The full-time performance by the human driver of all aspects of the dynamic driving task, even when enhanced by warning or intervention systems.
 - ii. Level 1 – Driver Assistance: The driving mode-specific execution by a driver assistance system of either steering or acceleration/deceleration using information about the driving environment and with the expectation that the human driver performs all remaining aspects of the dynamic driving task.
 - iii. Level 2 – Partial Automation: The driving mode-specific execution by one or more driver assistance systems of both steering and acceleration/deceleration using information about the driving environment and with the expectation that the human driver performs all remaining aspects of the dynamic driving task.
 - iv. Level 3 – Conditional Automation: The driving mode-specific performance by an Automated Driving System of all aspects of the dynamic driving task with the expectation that the human driver will respond appropriately to a request to intervene.
 - v. Level 4 – High Automation: The driving mode-specific performance by an Automated Driving System of all aspects of the dynamic driving task, even if a human driver does not respond appropriately to a request to intervene.
 - vi. Level 5 – Full Automation: The full-time performance by an Automated Driving System of all aspects of the dynamic driving task under all roadway and environmental conditions that can be managed by a human driver.
 - b. "Connected Vehicle" means a vehicle that is not an AV and that communicates with the Internet, other vehicles, wayside systems, or passengers.
 - c. "Operator" means any person or entity who has the ability to control a vehicle through physical or electronic means.
- 5. Driver or Operator Required.**
- a. An AV must have a driver or operator fully engaged and able to take control of the vehicle at any moment. A driver or operator is subject to all current driving laws, including distracted-driving laws, must be in the traditional driver's seat or equivalent position, and must have a valid driver's license.
 - b. AV drivers and operators must:
 - i. Maintain focus and ability to take control of the vehicle at all times;

- ii. Only operate AVs within City-designated areas;
- iii. Ensure that appropriate testing signage is visible on the vehicle; and
- iv. Comply with all applicable laws and rules.

6. Permit required

- a. A Level 3, 4 or 5 AV may not be operated within the city of Portland without a valid City of Portland permit.
- b. The City Traffic Engineer will not issue a permit for the operation of an AV unless:
 - i. A permit application obtained from the Bureau of Transportation has been submitted to the Bureau Director and all the conditions therein have been satisfied;
 - ii. All applicable fees have been paid to the Bureau of Transportation; and
 - iii. The applicant has obtained automobile liability insurance in amounts acceptable to the City Attorney that names the City and its officers, employees, and agents as additional insured entities.

7. Permit termination or suspension

- a. The City Traffic Engineer may terminate or suspend a permit, effective immediately, at the reasonable discretion of the Bureau Director for reasons including, but not limited to, the following:
 - i. A failure to comply with the permit;
 - ii. A failure to comply with these rules; or
 - iii. A failure to operate vehicles authorized by the permit in a safe manner.
- b. The City Traffic Engineer may allow the temporary continuation of a permit that is otherwise subject to termination or suspension if, in the determination of the City, the public welfare would not suffer thereby.

8. Connected vehicles

A connected vehicle without a current contract may not access the City's digital transportation network or physical system until:

- a. All applicable fees have been paid to the Bureau of Transportation;
- b. A data confidentiality agreement, if applicable, has been executed and approved by the City Traffic Engineer; and
- c. The vehicle complies with all other existing City Code provisions and state and national laws including, but not limited to, those pertaining to sensor technology.

9. Civil penalties

A failure to comply with these rules is subject to an assessment of civil penalties by the Director of the Bureau of Transportation.

10. Administrative review

A decision by the City Traffic Engineer to deny a permit application, terminate an existing permit, or assess civil penalties may be reviewed by the Bureau of Transportation following the receipt of a completed administrative review request form obtained from the Bureau of Transportation.

11. Data Requirements

AV permit holders must give the City ownership of all data generated by the AV as required by permit.