



PORTLAND BUREAU OF TRANSPORTATION

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Dan Saltzman Commissioner **Leah Treat** Director

TRN-14.34 – Connected and Autonomous Vehicles

Administrative Rule Adopted by Portland Bureau of Transportation Pursuant to Rule-Making Authority Portland City Code 16.40.970

- I. Recommendations for rule adoption and code revisions. At the recommendation of the PFHT Advisory Committee, the Director may adopt administrative rules pursuant to Chapter 16.40.970 and may provide to the Bureau Commissioner-in-Charge a recommendation to revise any sections here within Chapter 16.40.

Under the authority of 16.40.970, I am adopting Administrative Rule TRN-14.34 to outline the Bureau’s Connected and Autonomous Vehicle policy and permit:

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) and above to operate in the City of Portland, the AV company owning or operating the vehicle 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 or designee.

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. Commercial passenger operations are also regulated under City Code Chapter 16.40, Private For-Hire Transportation [Regulations](#). The provisions of this administrative rule complement, but do not replace, any provisions in Chapter 16.40.

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.

On June 14, 2017, the Portland City Council affirmed the Initiative by adopting [Resolution 37296](#) “Support Smart Autonomous Vehicle Initiative Implementation.”

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 Director of the Bureau of Transportation 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 state and local traffic laws, including distracted-driving laws, 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 requirements.

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 Director of the Bureau of Transportation 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 Director of the Bureau of Transportation 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 Director of the Bureau of Transportation 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 Director of the Bureau of Transportation; 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 Bureau of Transportation to deny a permit application, terminate an existing permit, or assess civil penalties may be reviewed by the Director of the Bureau of Transportation following the receipt of a completed administrative review request form obtained from PBOT Regulatory section.

11. Data requirements

AV permit holders must give the City access to data generated by the AV as required by permit.