

# TCRPC

## Planning Toolkit Fact Sheet



### INTRODUCTION

Personal Delivery Devices (sometimes known as PDDs) are a new form of ground-based delivery device that is manufactured for transporting cargo or goods. PDD's are operated by a driving system that allows for autonomous and or remote operations. PDD's are classified by PennDOT as pedestrians and are afforded the same rights. Personal delivery devices are permitted to operate in any pedestrian area (sidewalk, crosswalk, safety zone, pedestrian tunnel, overhead pedestrian crossing or similar area for pedestrians). They can also operate on a shoulder or roadway posted 25mph or less. They must obey the following three exceptions at all times:

- PDDs must yield the right-of-way to all pedestrians and pedacyclists in a pedestrian area
- PDD must travel in the same direction of traffic when traveling on a roadway, shoulder/berm.
- In specific circumstances, a PDD may operate within the travel lane of a roadway.

Assuming there are no limiting safety restrictions and use is practicable, PDDs shall operating using priority which includes: (1) utilize the shoulder or berm of roadway, (2) utilize a pedestrian area such as a sidewalk, and (3) utilize the roadway as practicable to the outside edge.

Prior to operation, an application must be submitted to PennDOT for PDD authorization. Once authorized, PDD's will operate in two different phases:

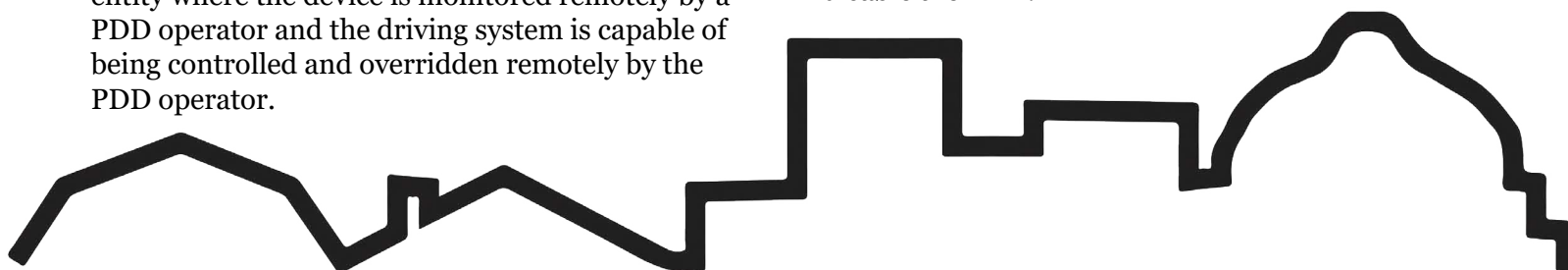
- Phase 1: PDD's will be operated through a remote driving system, the PDD operator must be within 30 feet of the PDD and maintain in line of sight at all times. An authorized entity shall be limited to phase 1 operation to demonstrate safe operations. This phase can be no less than 90 days and no more than 180 days.
- Phase 2: The operation of a PDD through a driving system that allows remote operation by an authorized entity where the device is monitored remotely by a PDD operator and the driving system is capable of being controlled and overridden remotely by the PDD operator.

PennDOT is responsible for authorizing and developing policies governing the operations of PDDs and the application process involved with granting authorization. An application of renewal for the PDD must be submitted 45 days prior to the expiration of the PDD. To ensure ongoing compliance, the authorized entity shall provide a quarterly performance report. The report shall contain the following information regarding the quarter: total miles traveled, total number of trips by hour/day of week, approximate average speed when operating on a roadway, total number of violations.

Municipalities are able to enforce any law, rule, or regulation as it relates to the operation of the personal delivery device. Municipalities are able to create an ordinance or resolution to do the following:

- Permit the use of PDD on a roadway, shoulder or berm of a roadway, under the jurisdiction of the municipality where the speed limit is greater than 25 mph but does not exceed 35 mph.
- Prohibit the use of a PDD on any roadway, shoulder, or berm of roadway along with a pedestrian area where the municipality determined the operation of the PDD would constitute a hazard.

Mandatory requirements for all PDD's include, a maximum width of 32 inches or less, maximum length of 42 inches or less, maximum height of 72 inches or less, and a maximum weight of 550 pounds not including cargo or goods, and a maximum speed of 12mph when in pedestrian areas. The Personal Delivery Device must be equipped with a braking system that brings the PDD to a complete stop from an initial speed of 25 miles an hour or less. The PDD must be equipped with a lamp that is able to emit a beam of white light to illuminate a PDD's path and a visible distance of at least 500 feet to the rear. Must be equipped with software and technology to allow a police officer or another emergency responder to stop/disable the PDD.



## BENEFITS

- Allows for contactless delivery
- Can reduce congestion on roadways relating to delivery vehicles

## DRAWBACKS

- Risk of Accidents involving PDD's
- Safety hazards to children and pedestrians
- Can take jobs away from delivery drivers

## PRACTICAL TIPS

- Develop a safety plan in case of emergencies
- Proper training for PDD operators

## RESOURCES

- **Personal Delivery Devices (PDD) operations policy- PennDOT**
- **PDD Guidance - PennDOT**

## RELATED TOOLKIT FACT SHEETS

- **Drones**

