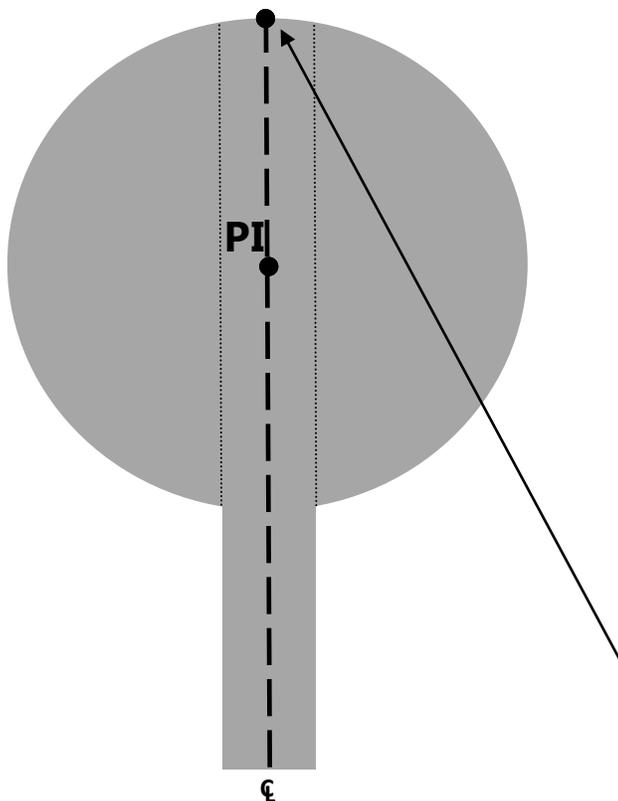
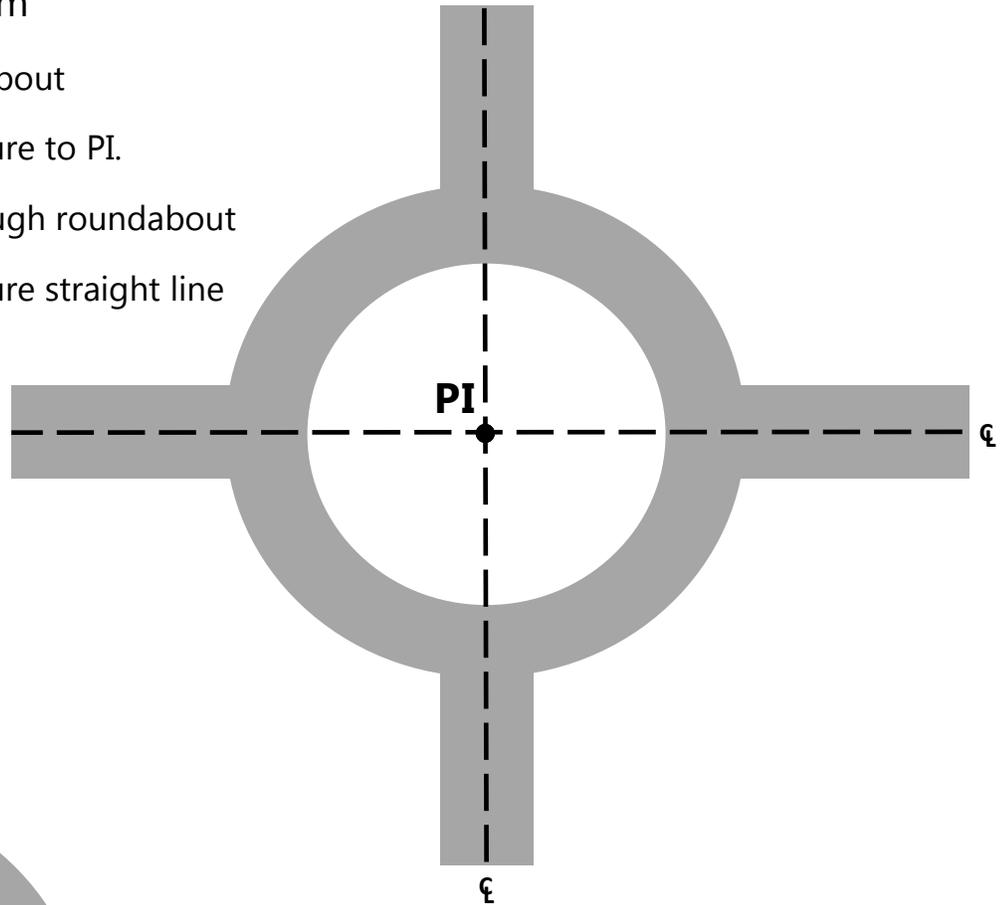


# How lengths are measured for Needs purposes and reported on Certification of Mileage

## Roundabout

Typically on MSAS System

1. Segment ends at roundabout
  - Segment length is measure to PI.
2. Segment continues through roundabout
  - Segment length is measure straight line distance through the PI.



## Cul-de-sac

Typically on local system

- Length used to measure mileage for Certificate of Mileage

Length is measure to end of bulb