# Gondola 101:

## What's a Gondola and Why Do You Care?

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# Agenda – Transit Ropeways

- Why might you care?
- What is a ropeway, *really*?
- What good are they?
- Implementation Issues
- Summary Comments

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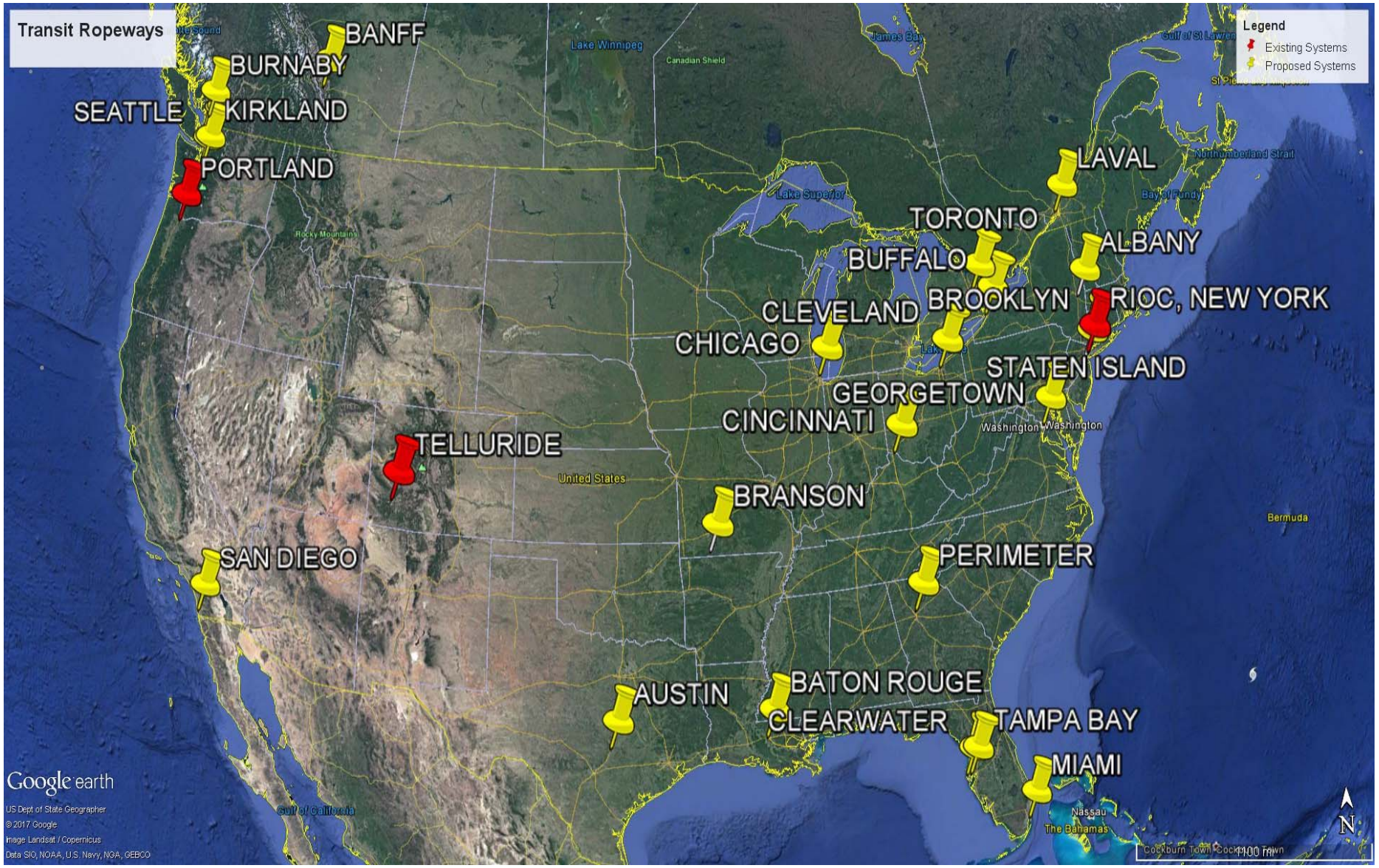


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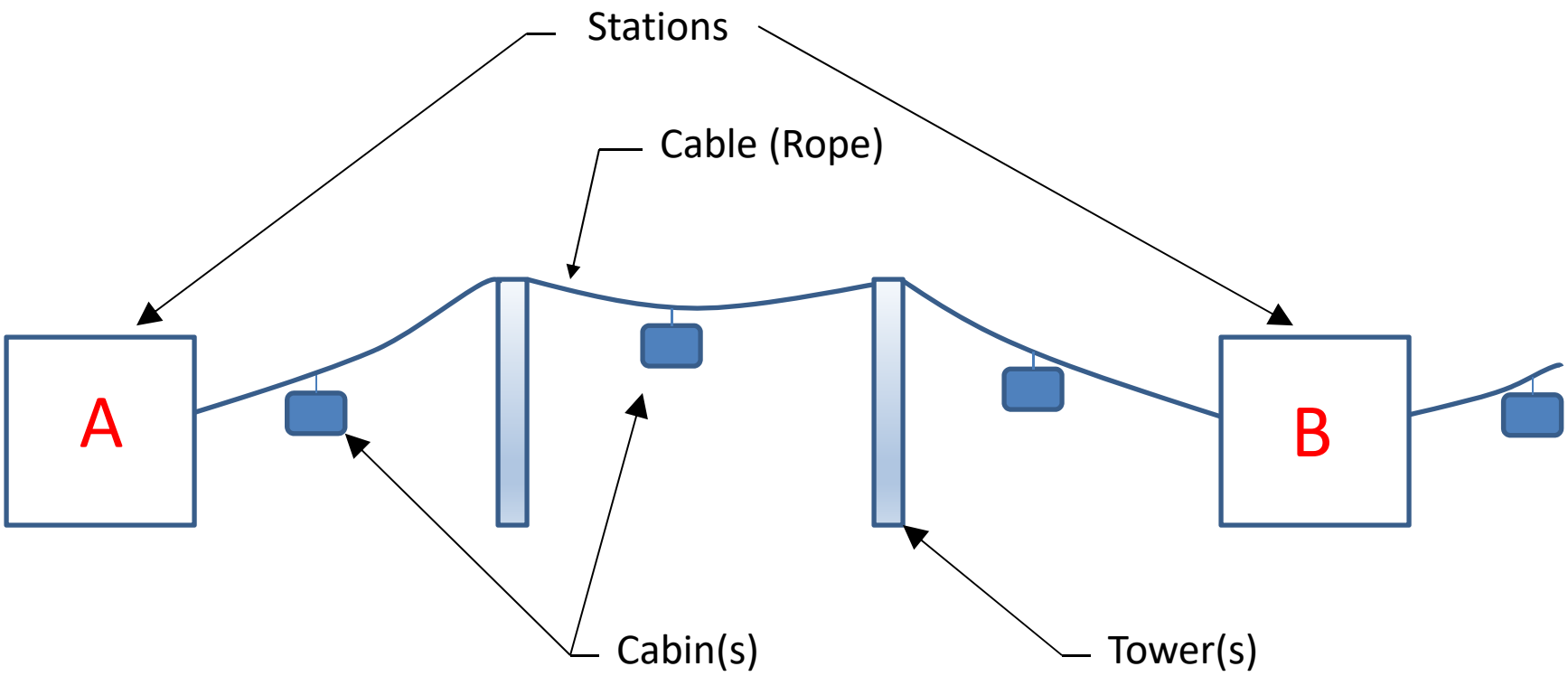
# What is a ropeway?



# Historical Use

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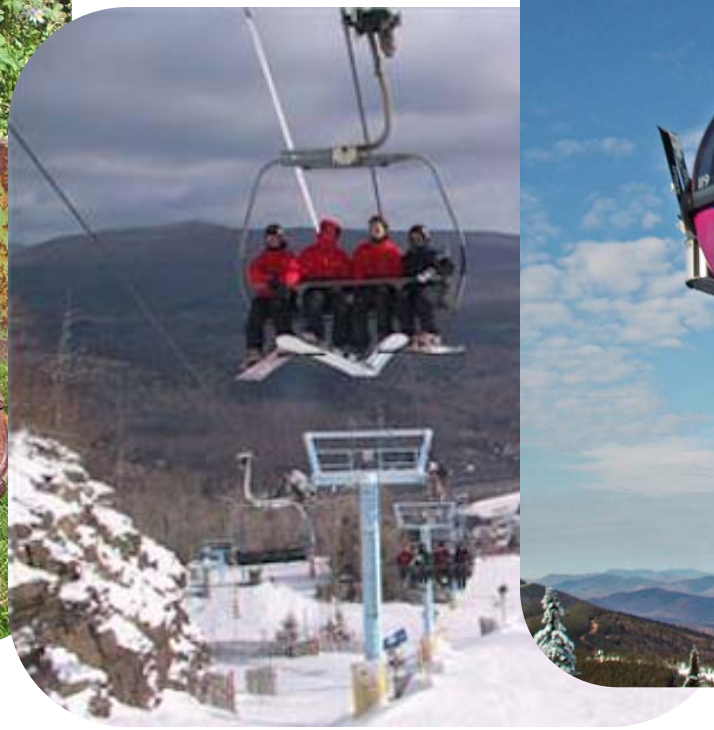
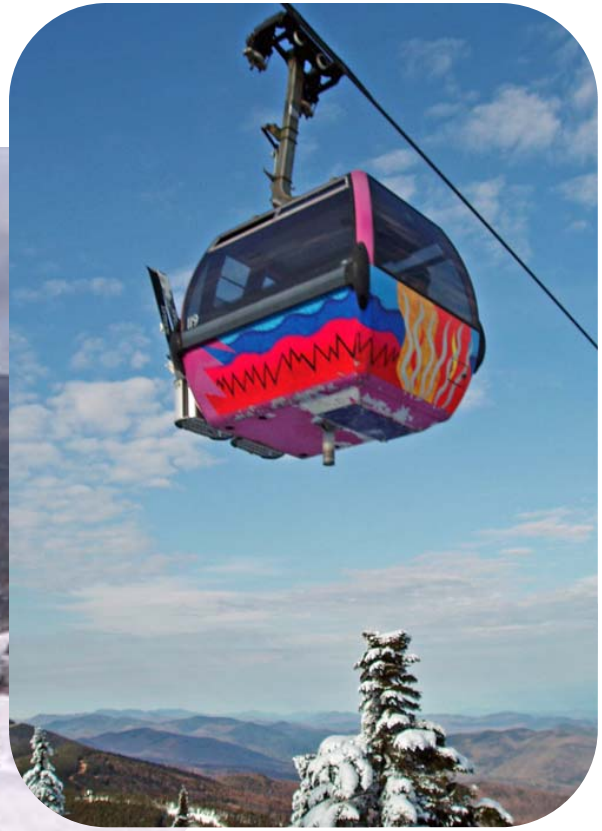
# Historical Use





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# Urban Uses

Singapore

Barcelona

Italy

www.seilbahn-koblenz.de
Koblenz, Germany

# Ropeway Types - Tramway

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# Ropeway Types - Gondola

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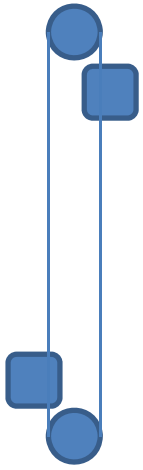
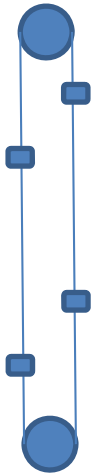
# Ropeway Types – 3S Gondola

# Tramway or Gondola?



- Vehicles shuttle back and forth
- Generally larger cabins, 50-200 passengers
- Comparatively longer headways
- System Capacity: up to 2,000 pphpd (persons per hour per direction)



- Vehicles continuously circulate
- Generally smaller cabins, 8-15 passengers
- System Capacity: >3,000+ pphpd (persons per hour per direction)

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# Stations - Simple

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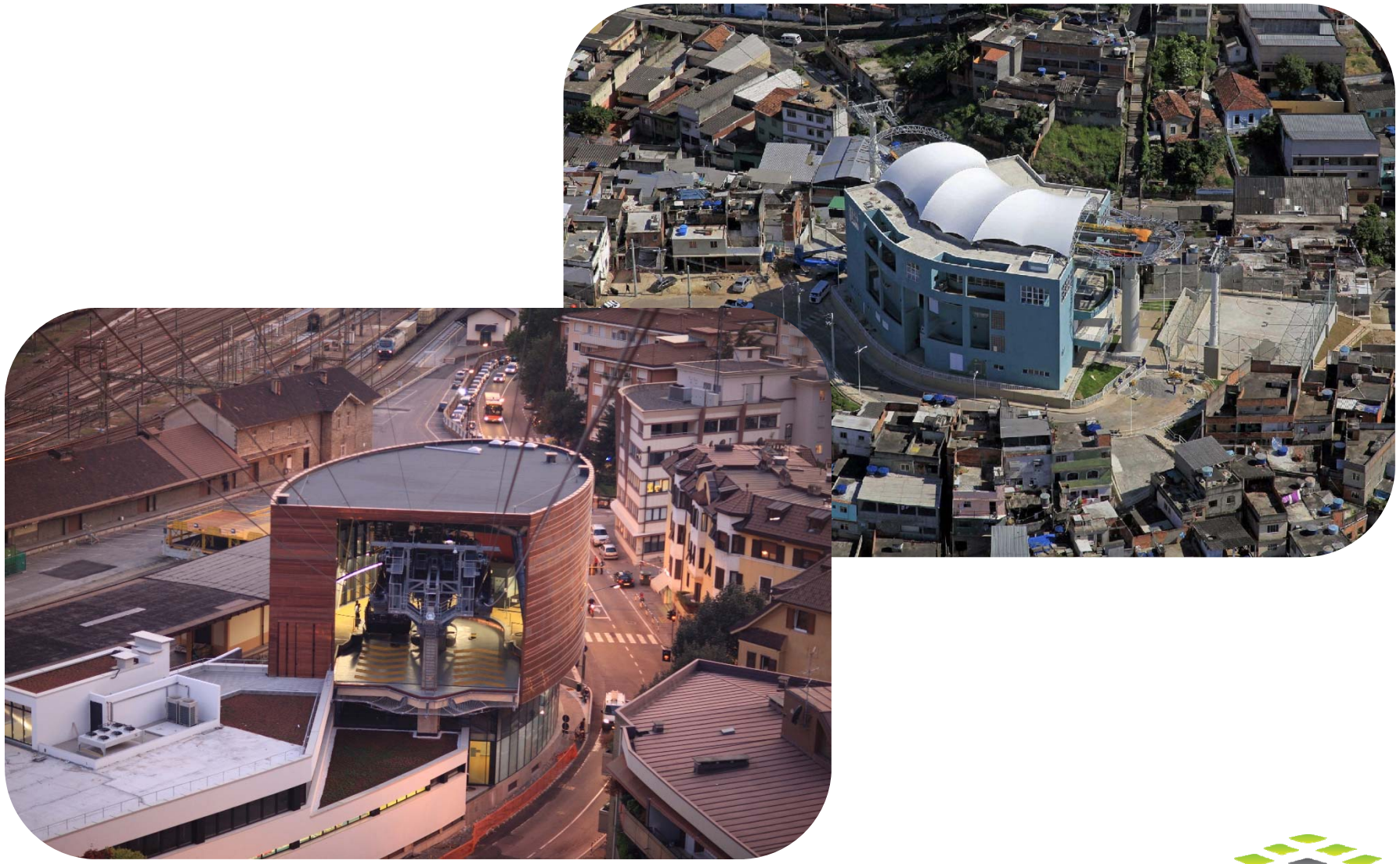
# Stations – Not So Simple



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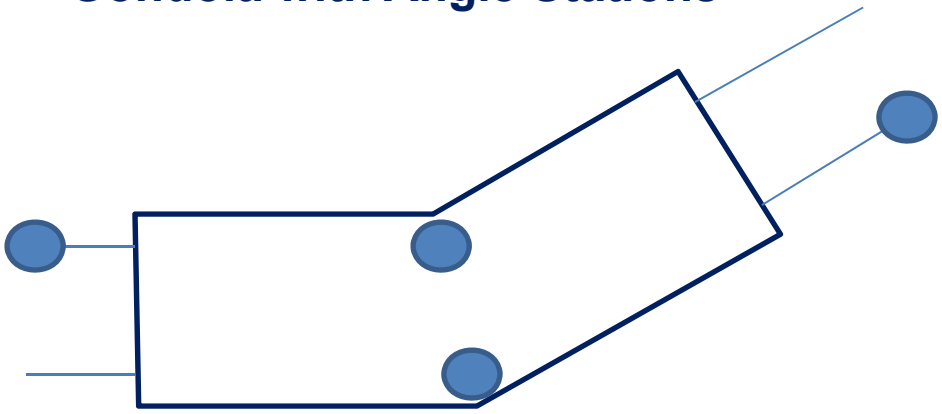
# Angle Stations

## Gondola with Angle Stations



- Angle stations may be used for passenger access or to just accommodate turns
- Angle stations allow for continuous ride, no need to change cabins

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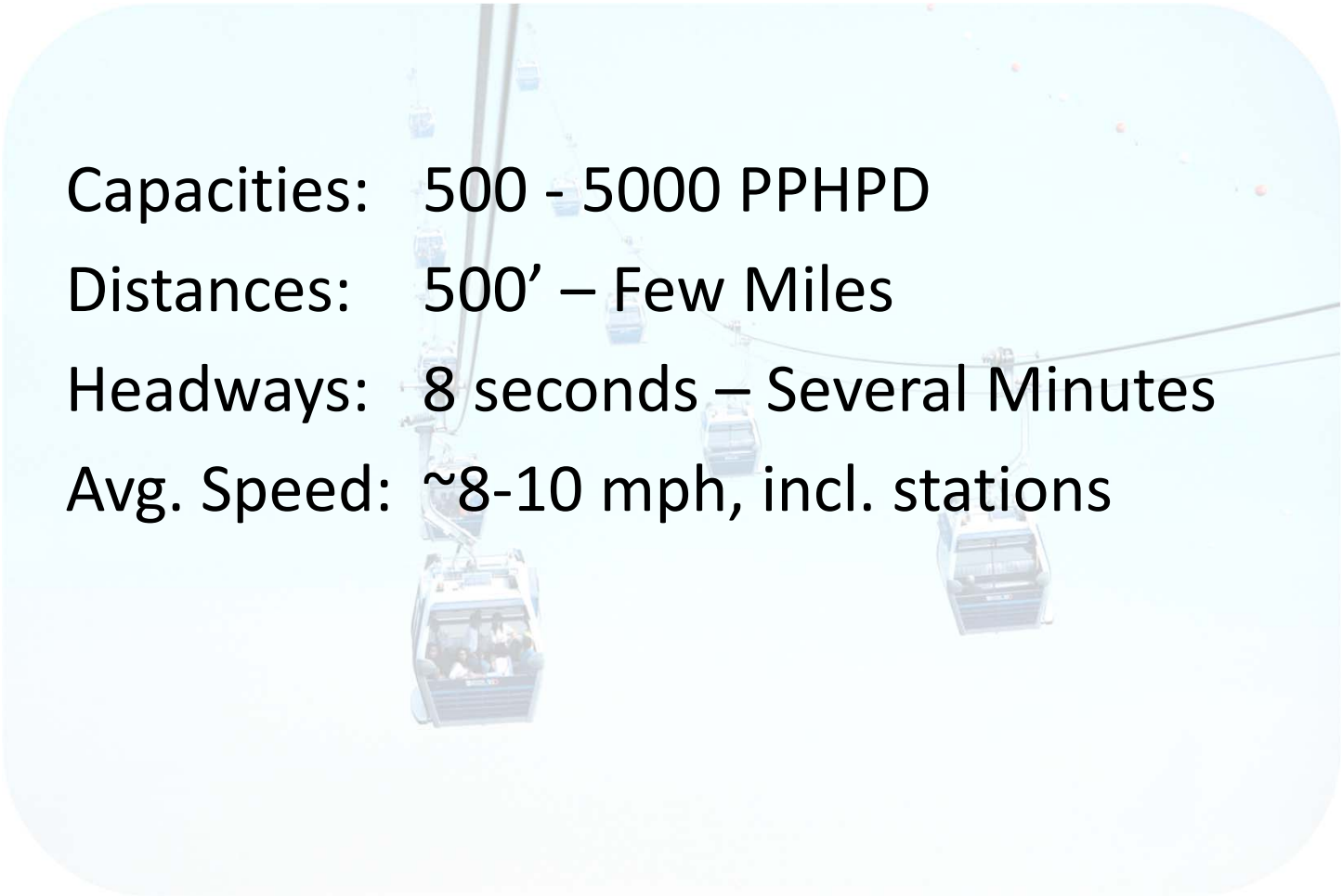
# Transit Wonk Info



Capacities: 500 - 5000 PPHPD

Distances: 500’ – Few Miles

Headways: 8 seconds – Several Minutes

Avg. Speed: ~8-10 mph, incl. stations

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# Transit Opportunities

- Good Capacities
- Continuous Operation – No Schedule
- Circulator or Connector Systems

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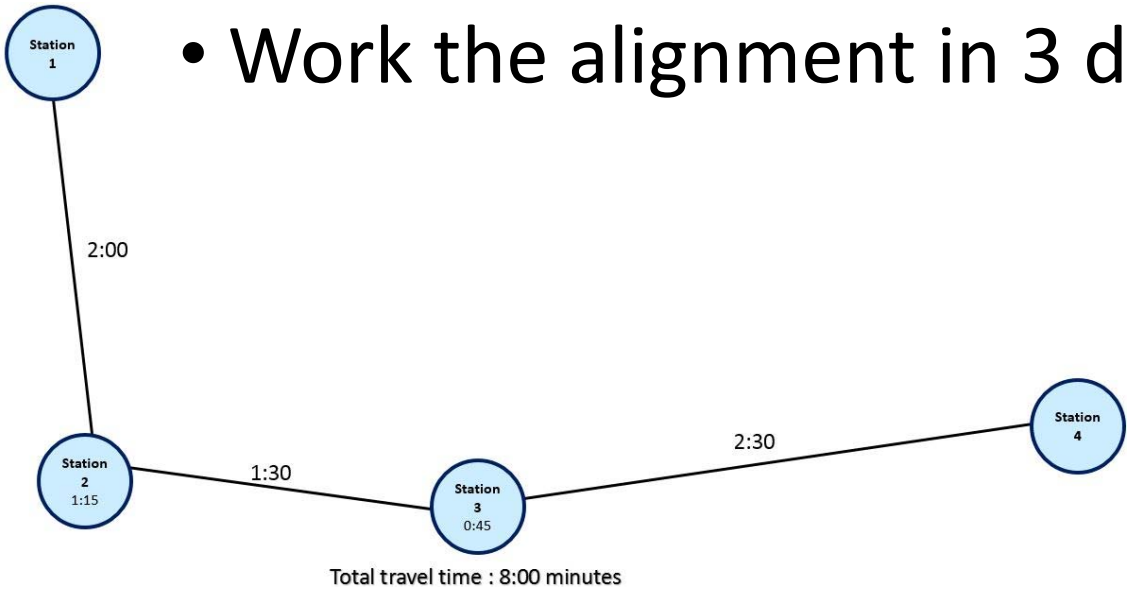
# Connect the Dots

- Straight lines between stations
- May or may not bend at stations
- May or may not load/unload passengers at stations
- Work the alignment in 3 dimensions

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# Roosevelt Island Tram

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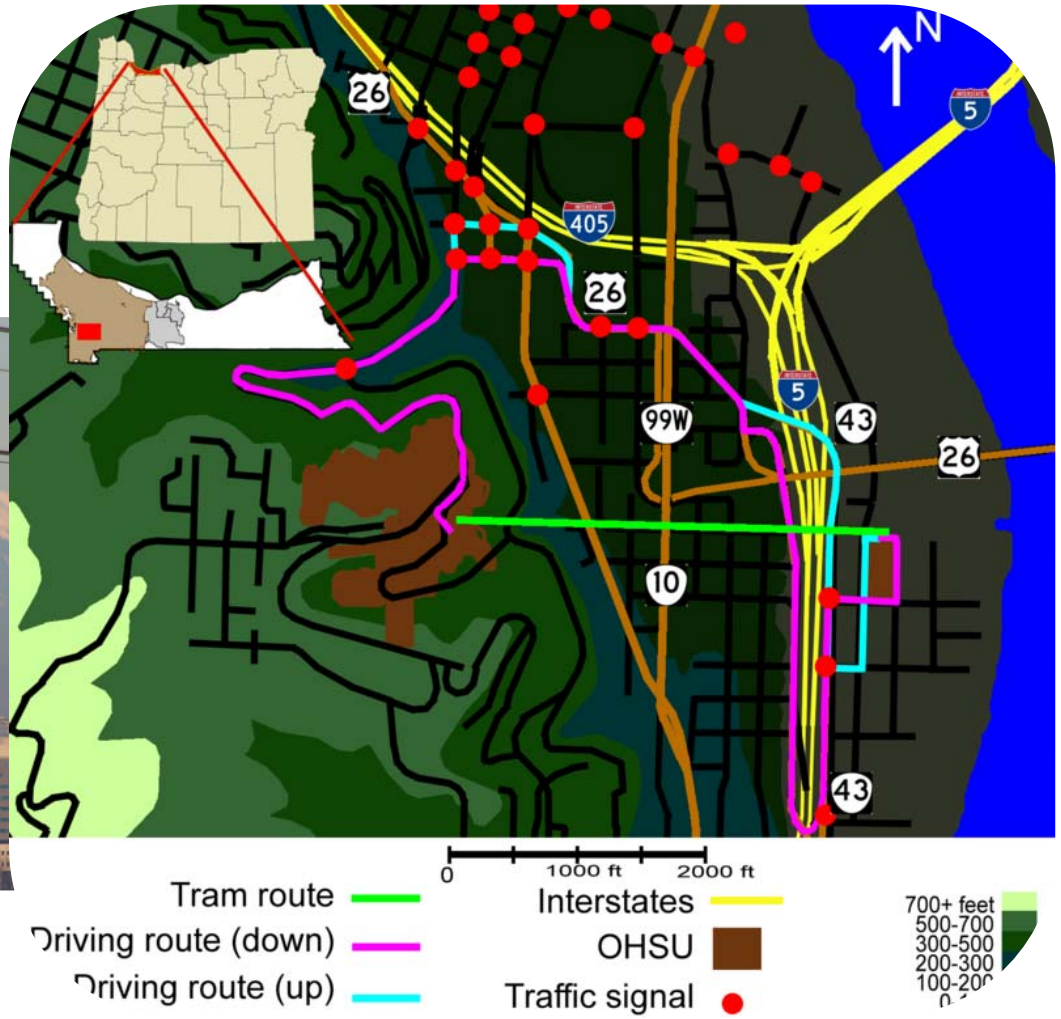
# Portland Aerial Tram

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# Some Ridership Numbers

| | |
|---|---|
| Roosevelt Island: | 2.7M annually |
| Portland Tram: | 1.4M annually |
| Medellin Line K: | 12M annually |
| Rio de Janeiro: | 4M annually |

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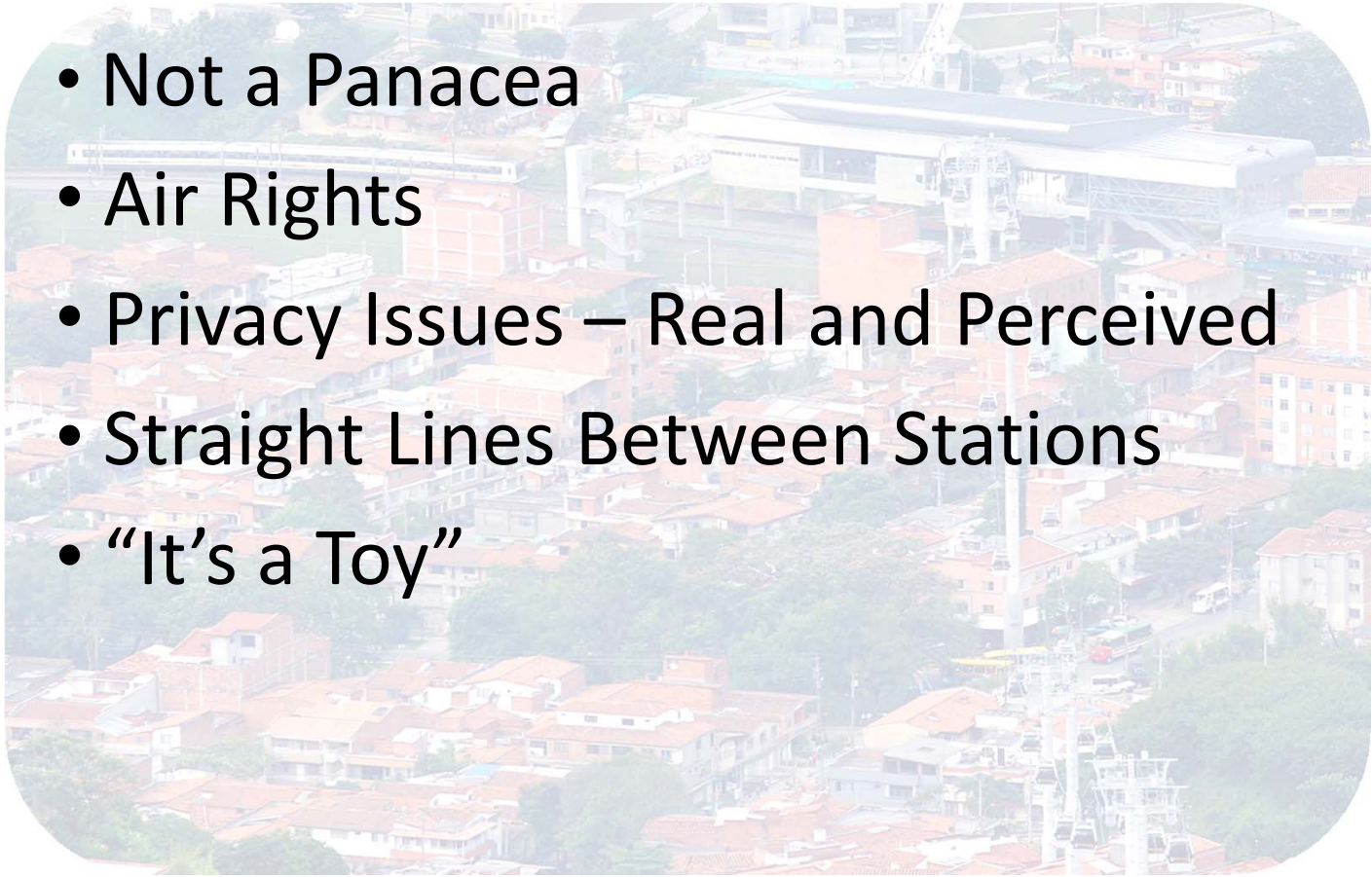
# Benefits

- Non-displacing and additive
- No linear infrastructure = Low build effort
- Low build effort = Cheap and fast

# Challenges



- Not a Panacea
- Air Rights
- Privacy Issues – Real and Perceived
- Straight Lines Between Stations
- “It’s a Toy”

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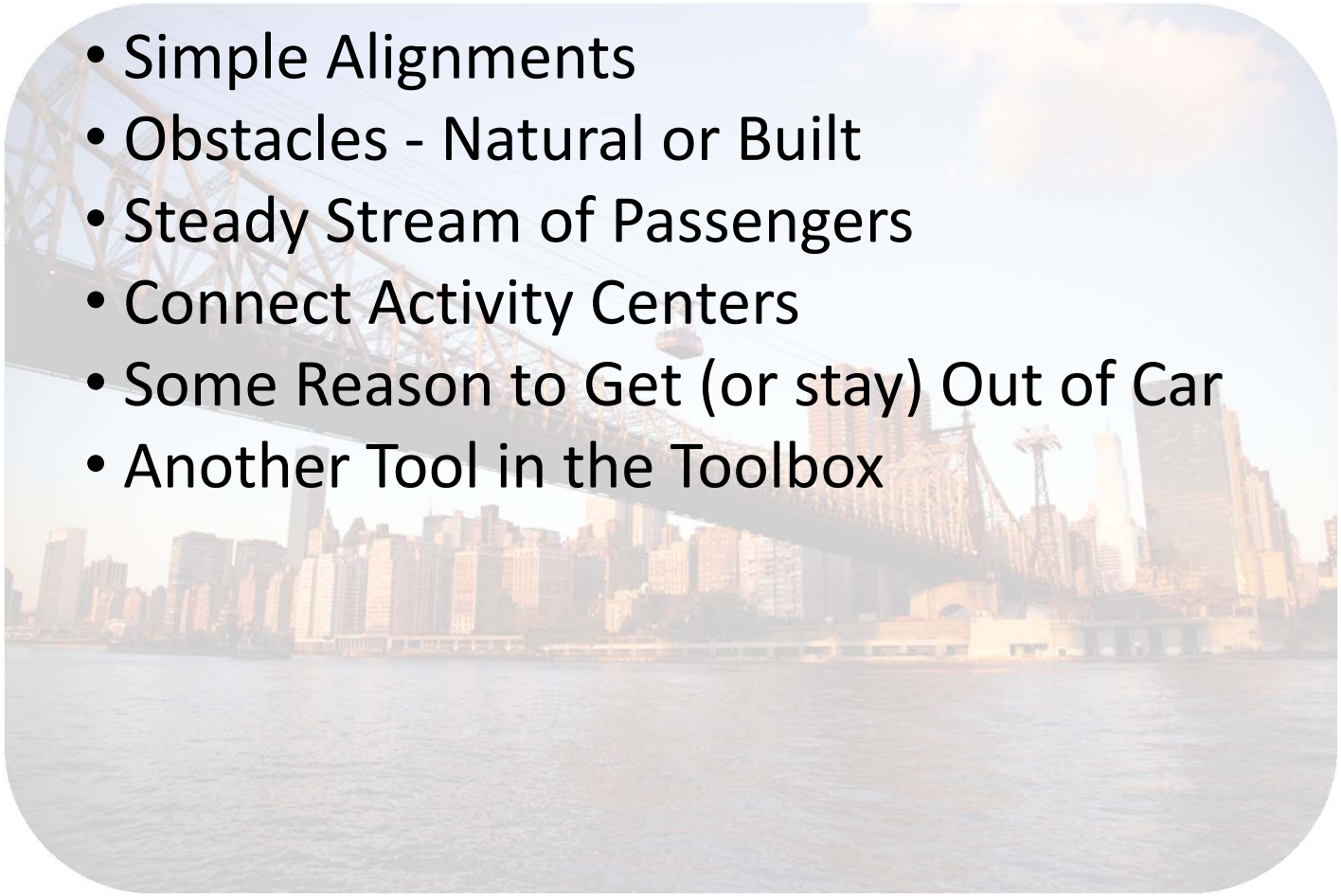
# Success Factors



- Simple Alignments
- Obstacles - Natural or Built
- Steady Stream of Passengers
- Connect Activity Centers
- Some Reason to Get (or stay) Out of Car
- Another Tool in the Toolbox

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# Thank you!

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