

DYNAMIC PERSONAL MICRO TRANSIT (DPMT) FOT UPDATE

Prepared for SIP-adus Workshop 2022



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Glydways is a new form of mobility that prioritizes:

Excellent User Experience

- Frequency - On Demand / Always
- Consistency - Always on time, point to point
- Safety - Personal Ride, 24/7
- ADA - Exceed requirements

Rider choice makes Public Transit competitive with personal cars.



A Great Experience

Comfort, access and low costs

- 5ft (1.5m) lane, size of a bike lane
- No rails provides operational flexibility and reduces costs
- Up to 4 people
- Full ADA Accessibility
- Space for bike, scooters, luggage, wheelchairs, baby strollers
- *Private Ride*

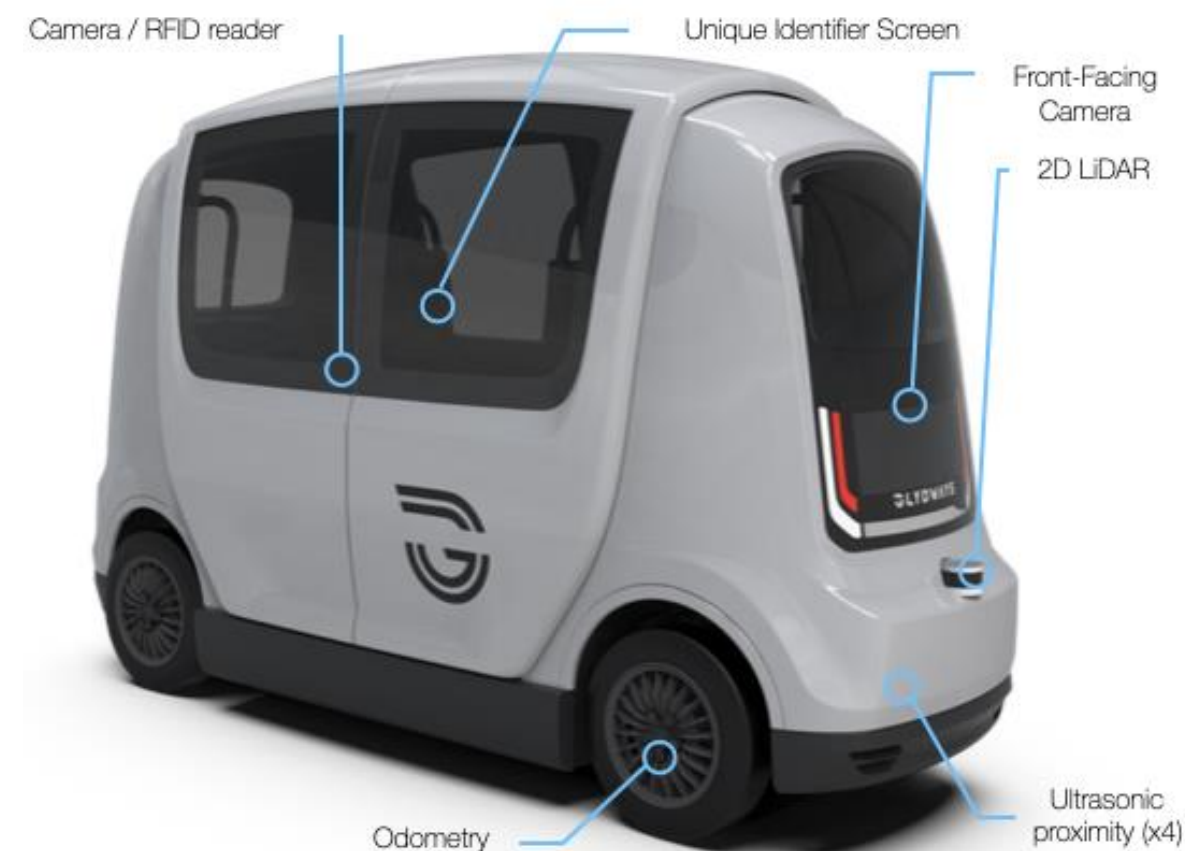


Glydways is designed to be simple

Simple Infrastructure



Mature EV and robust Autonomy



Funding & Project Delivery Flexibility

P3 finance today at current transit fares

OR

Traditional project funding and development

Industry Leading Partners



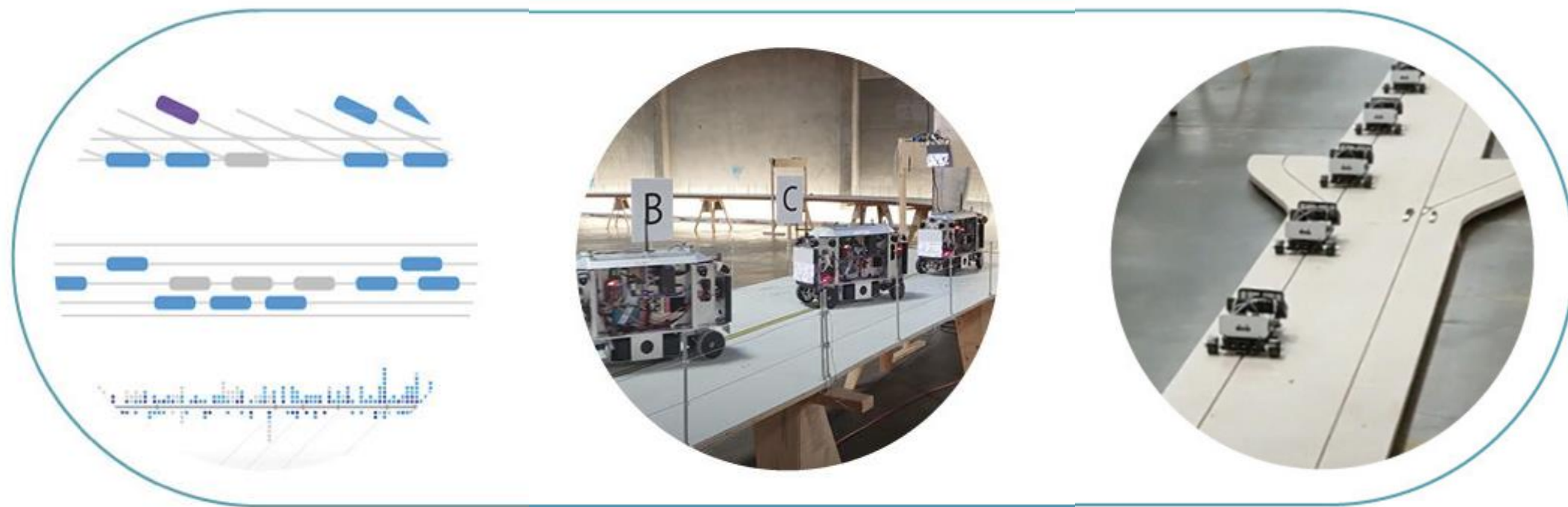
Working with Public Agencies and Regulators Proactively

Technology Progress Update

GLYDWAYS

Technology Development Timeline

Concept Development



2016 - 2020

Phases 1-3: Research and Development

- Develop core algorithms
- Validate in real world with a 1/5th & 1/10th scale system
- ASCE 21-13 alignment
- CPUC process alignment

Product Demonstration



COMPLETED 2021

- Phase 4: Reality in Motion - Glydways Development Facility, Concord CA
- Full scale development and demonstrations

Capacity Development



CURRENT PHASE
2022-2025

- Phase 5: Commercialization
- Development of a public-serving Glydways system
 - Testing and refinement towards CPUC certification
 - 15 vehicle orchestrated fleet
 - 5 Access points, 1/2 mile
 - Elevated infrastructure
 - MSF (Garage)

CPUC Certifiable

2025

Deployable anywhere in California for systems requiring 4,500 pphpd or less



We are here

Technical Progress Summary

- GDF (Glydways Demonstration Facility):
 - MSF facility (Garage, Maintenance, NoC build out)
 - 3 Access Points, 11 access spots
 - 3 Vehicle fleet
- Vehicle Performance Tests:
 - Multi vehicle orchestration
 - Platooning
 - Merging at speed
 - Braking
 - 30mph testing
 - Docking
- User testing:
 - Personal and Shared ride UX/UI
 - Production vehicle size changes
 - Kiosk and Phone UI
 - 75+ inexperienced users tests
 - ADA compliance alignment
- Infrastructure:
 - Validated Infrastructure cross sections
 - Tunnel cross section
 - MSF optimization

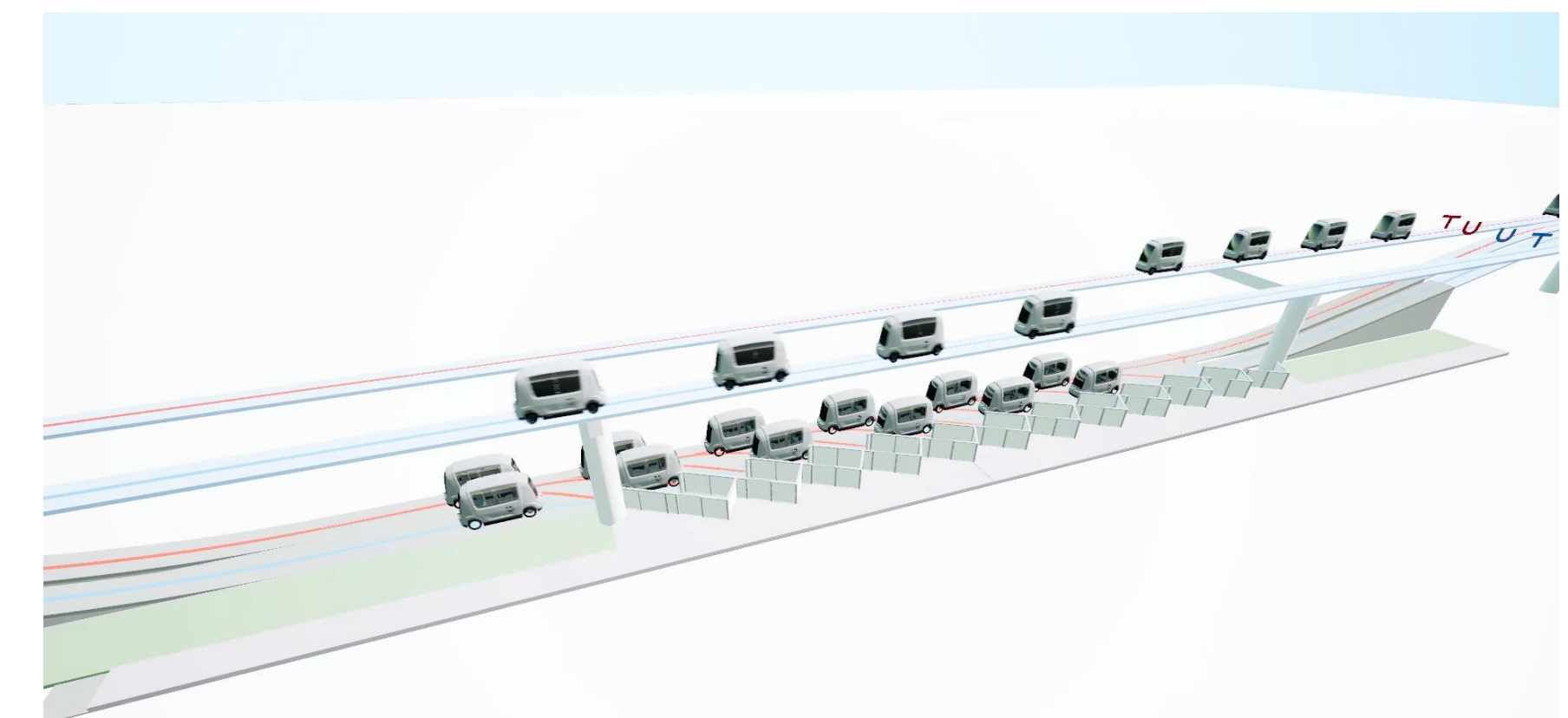
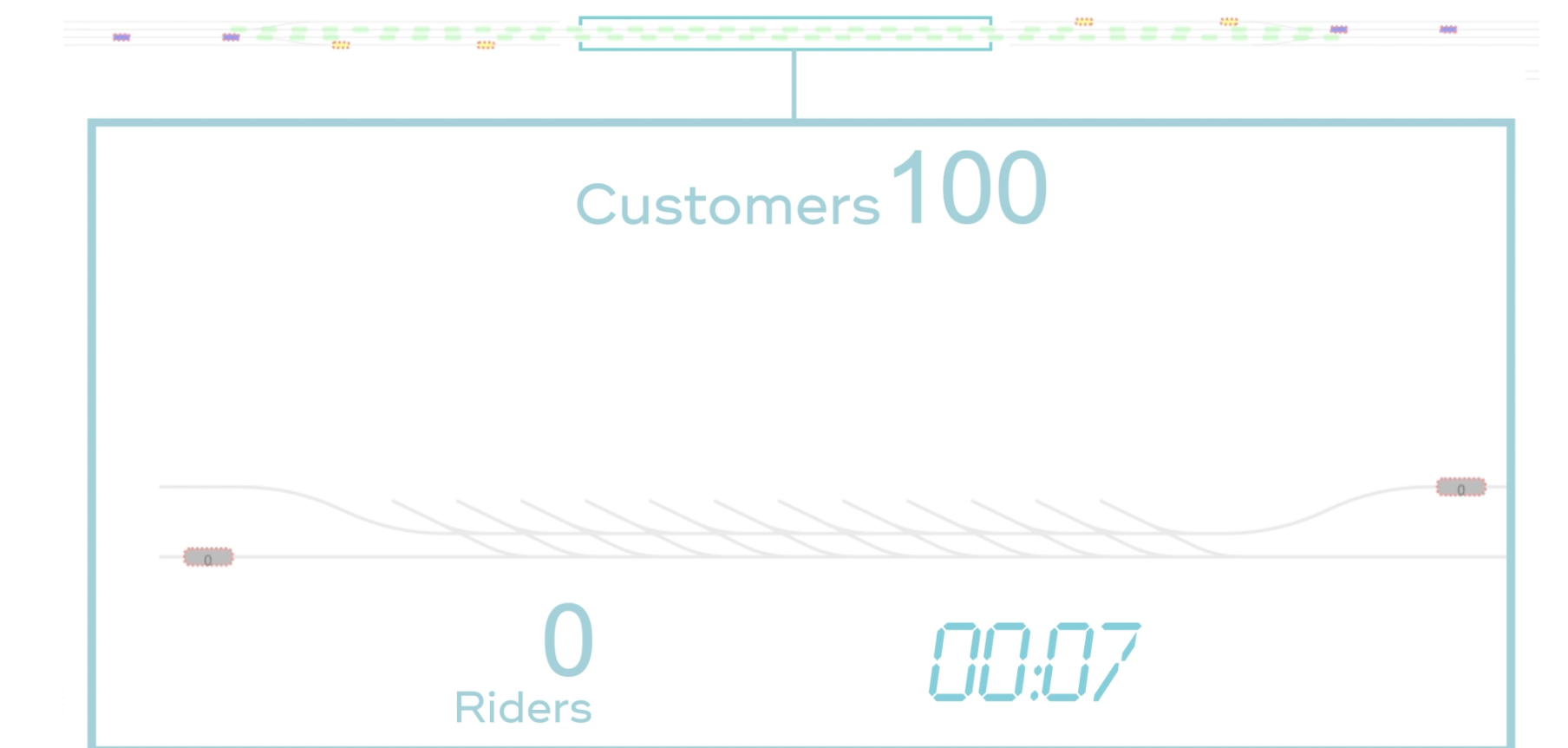
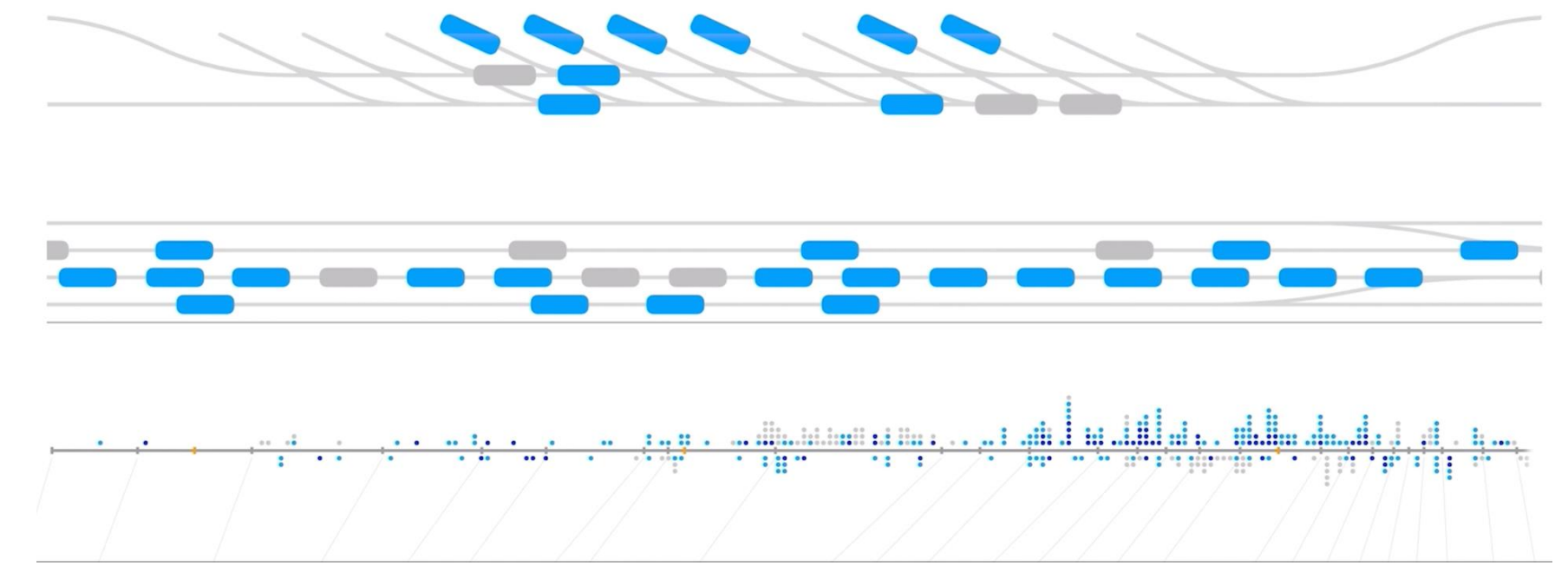
Glydways Development Facility (updates)



- 3 Vehicles
- 3 Access Points
- 10 Access Spots
- MSF, NOC
- 1000ft length
- 4 lanes

Vehicle Performance

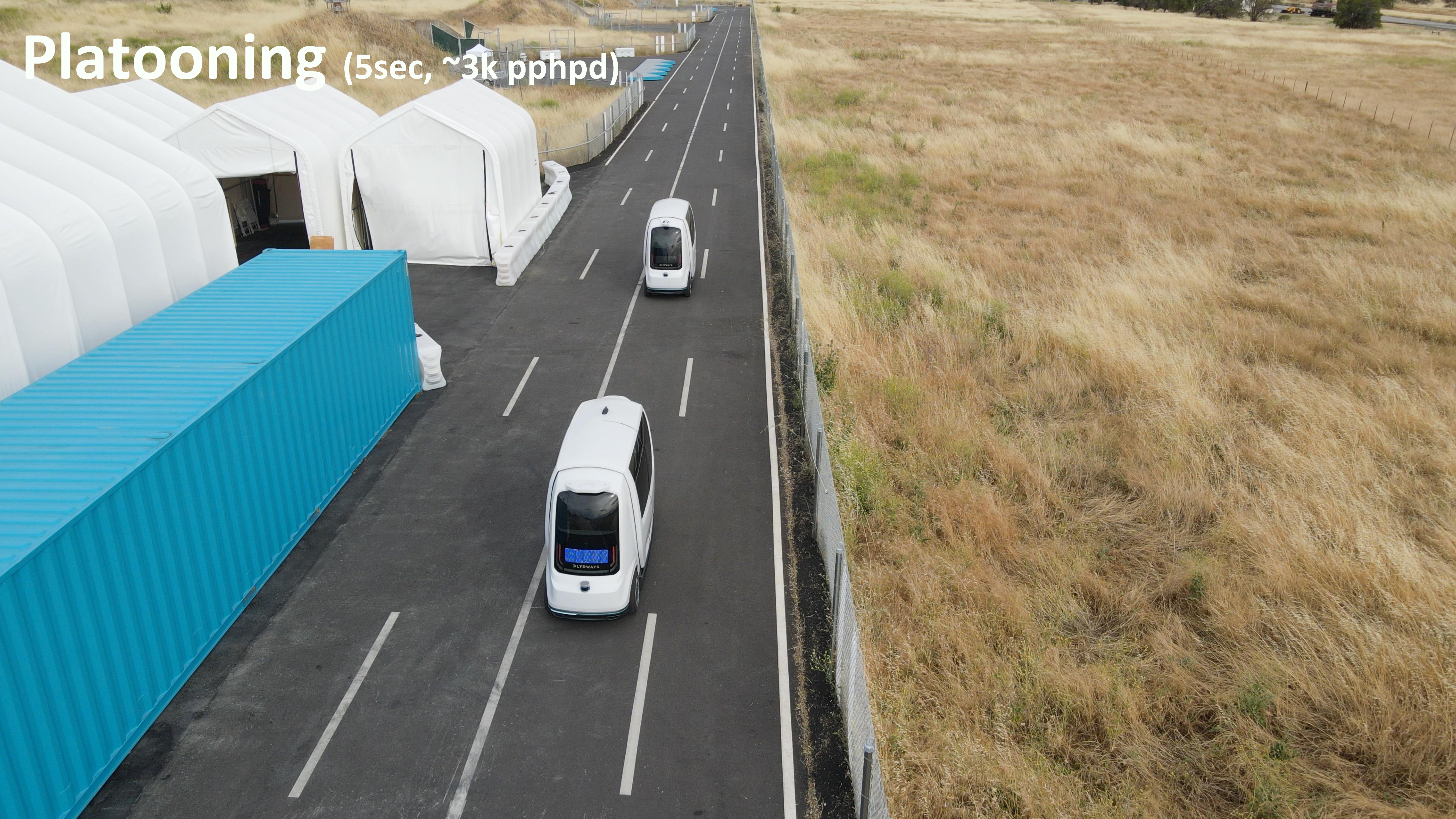
- Exclusive RoW Trunk lanes with close controlled headways (4500 pphpd).
- Bi-Directional steering, synchronous offline access point orchestration.
- Tight consistent docking
- 30mph operations - Platooning, braking



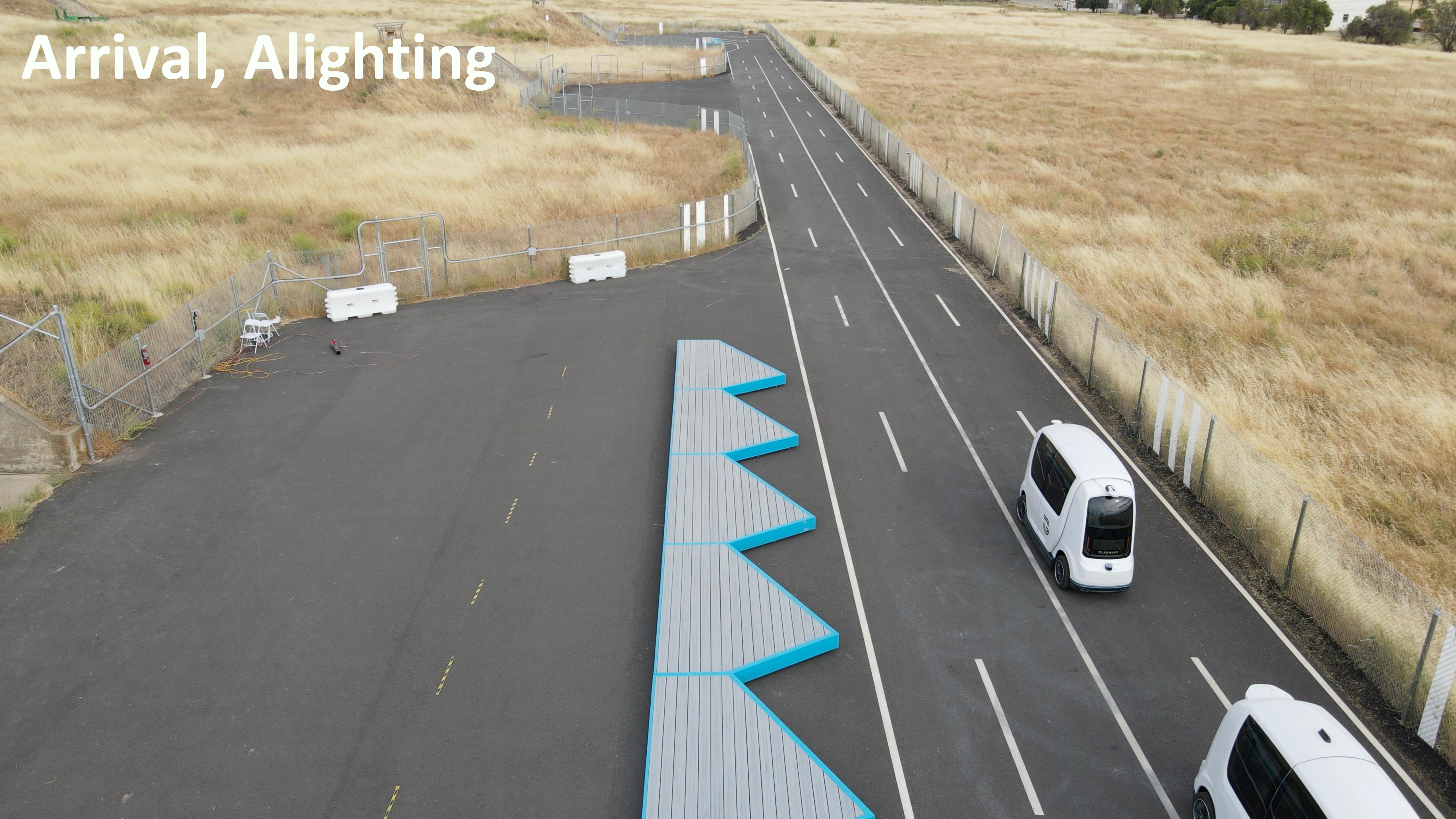
Boarding, Departing



Platooning (5sec, ~3k pphpd)



Arrival, Alighting



At speed merging



Bi-Directional Docking



32mph



Braking Test



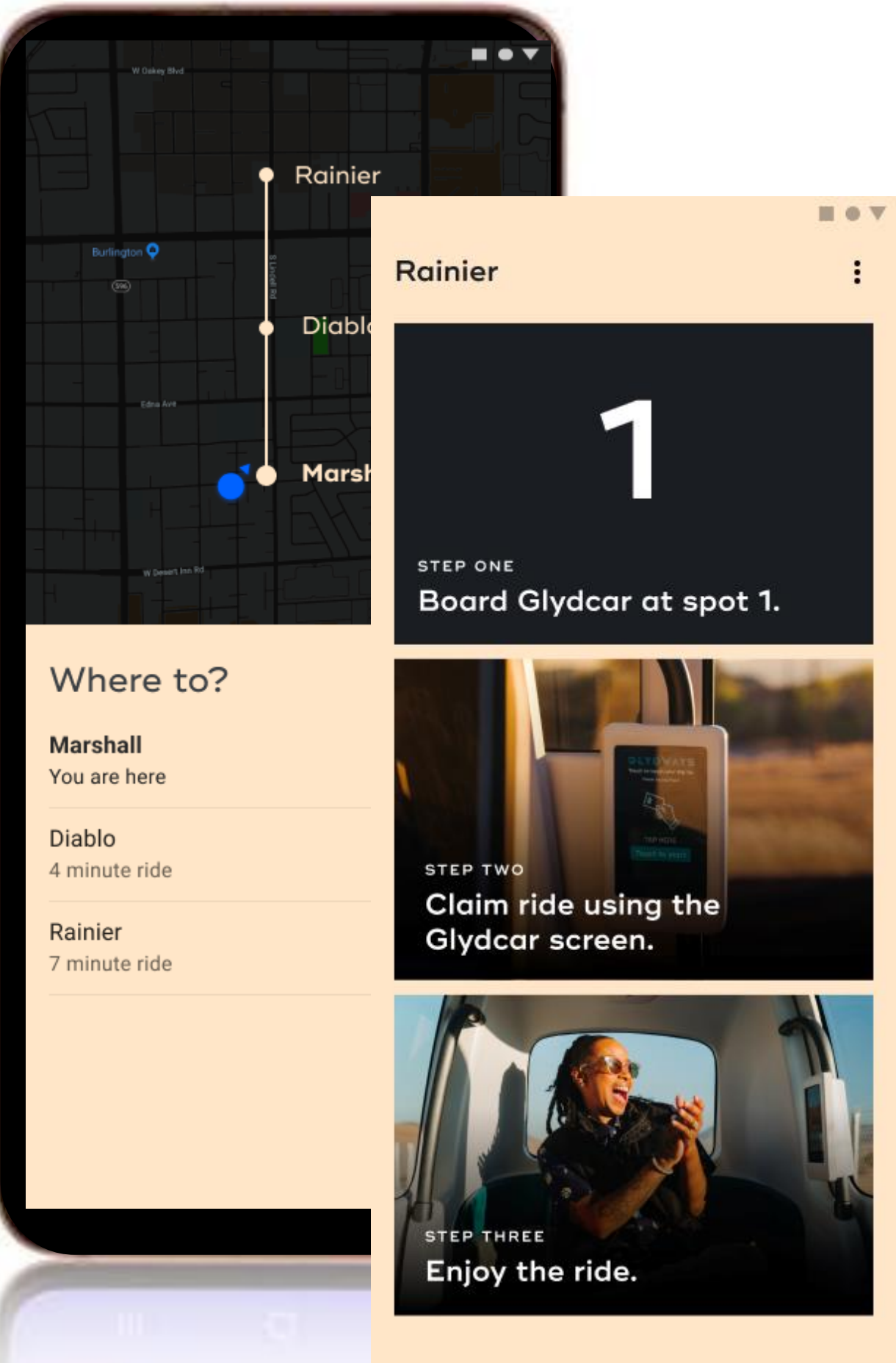
3 vehicle Fleet



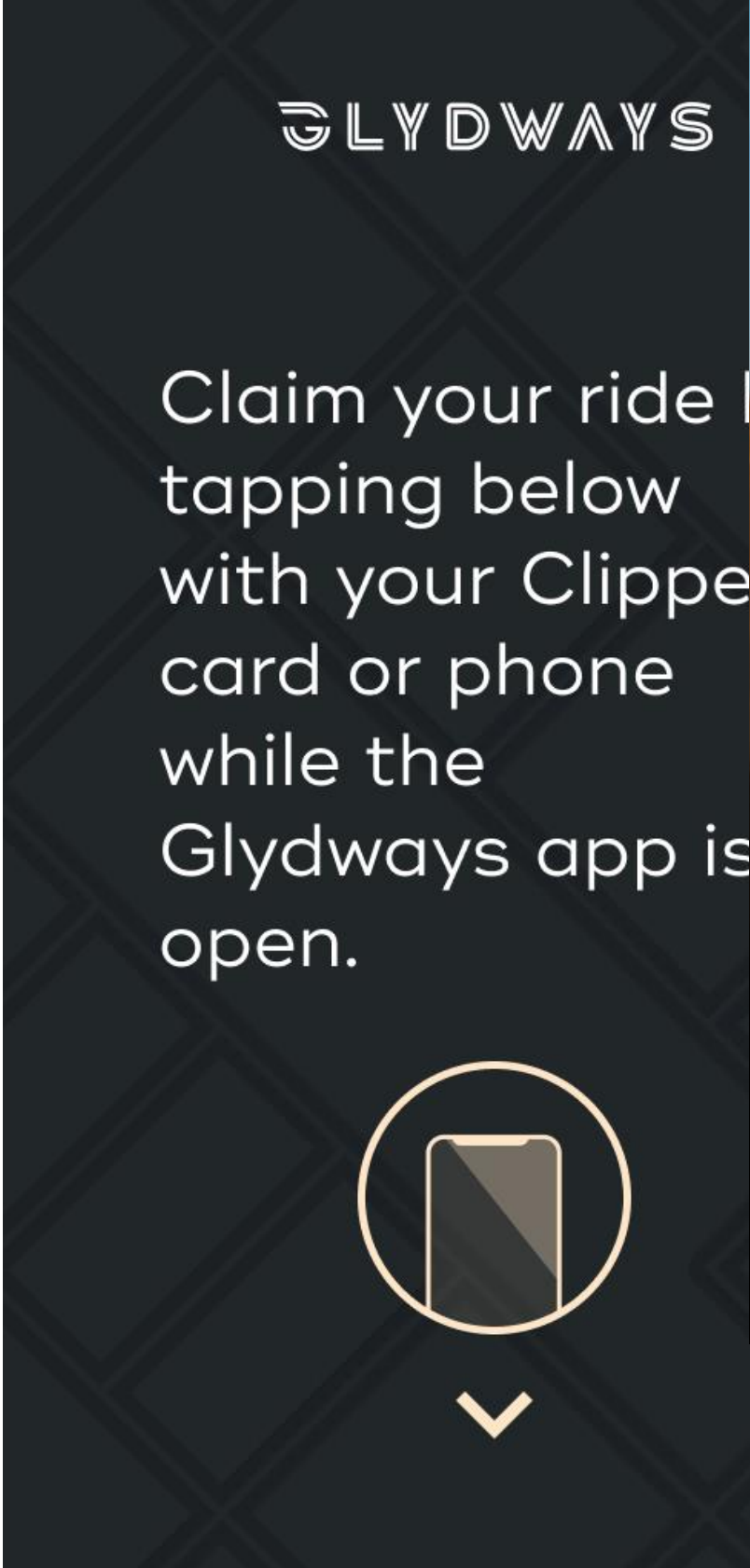
User Testing

- Successful user testing with inexperienced users
 - Personal Ride
 - Shared Ride
 - Phone App
 - Kiosk
- ADA compliance design
- Vehicle size adjusted

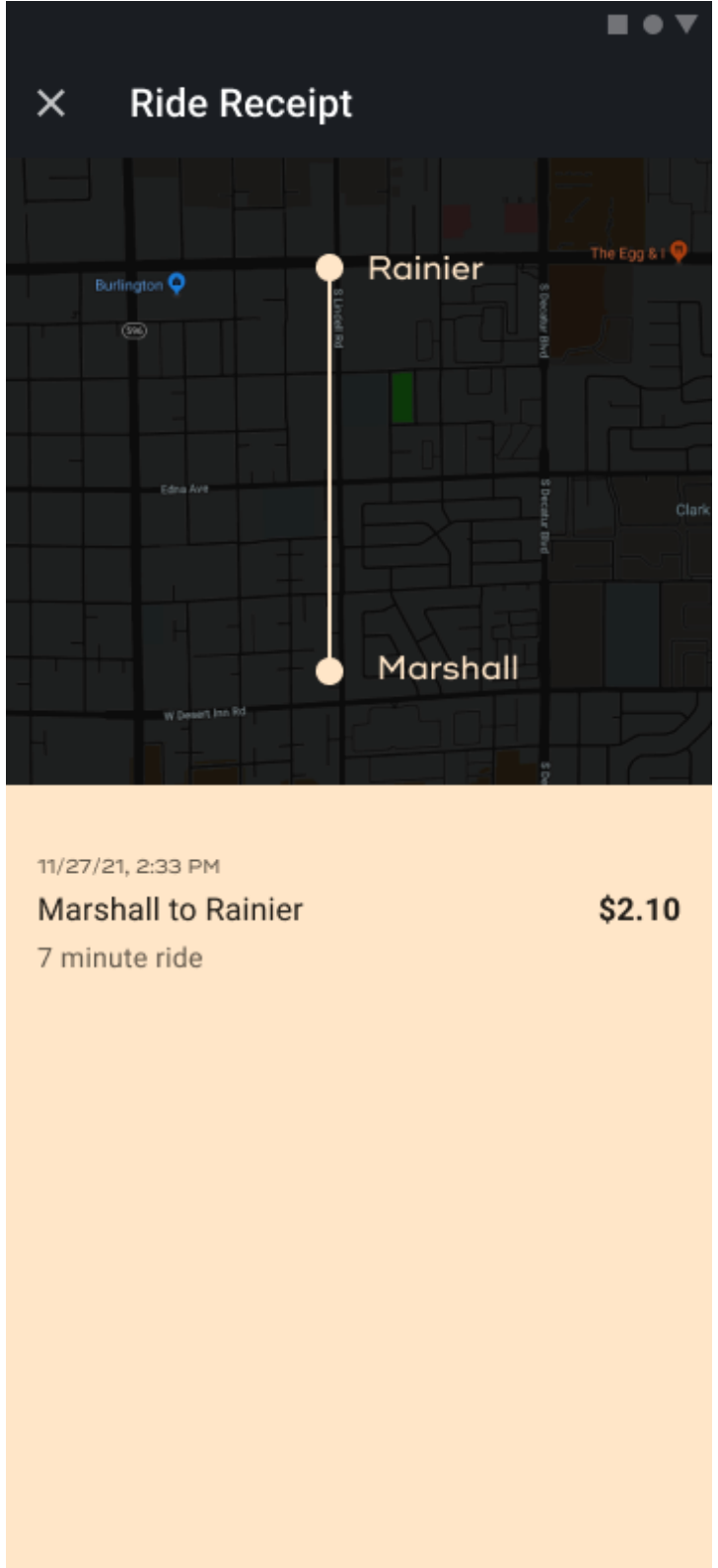
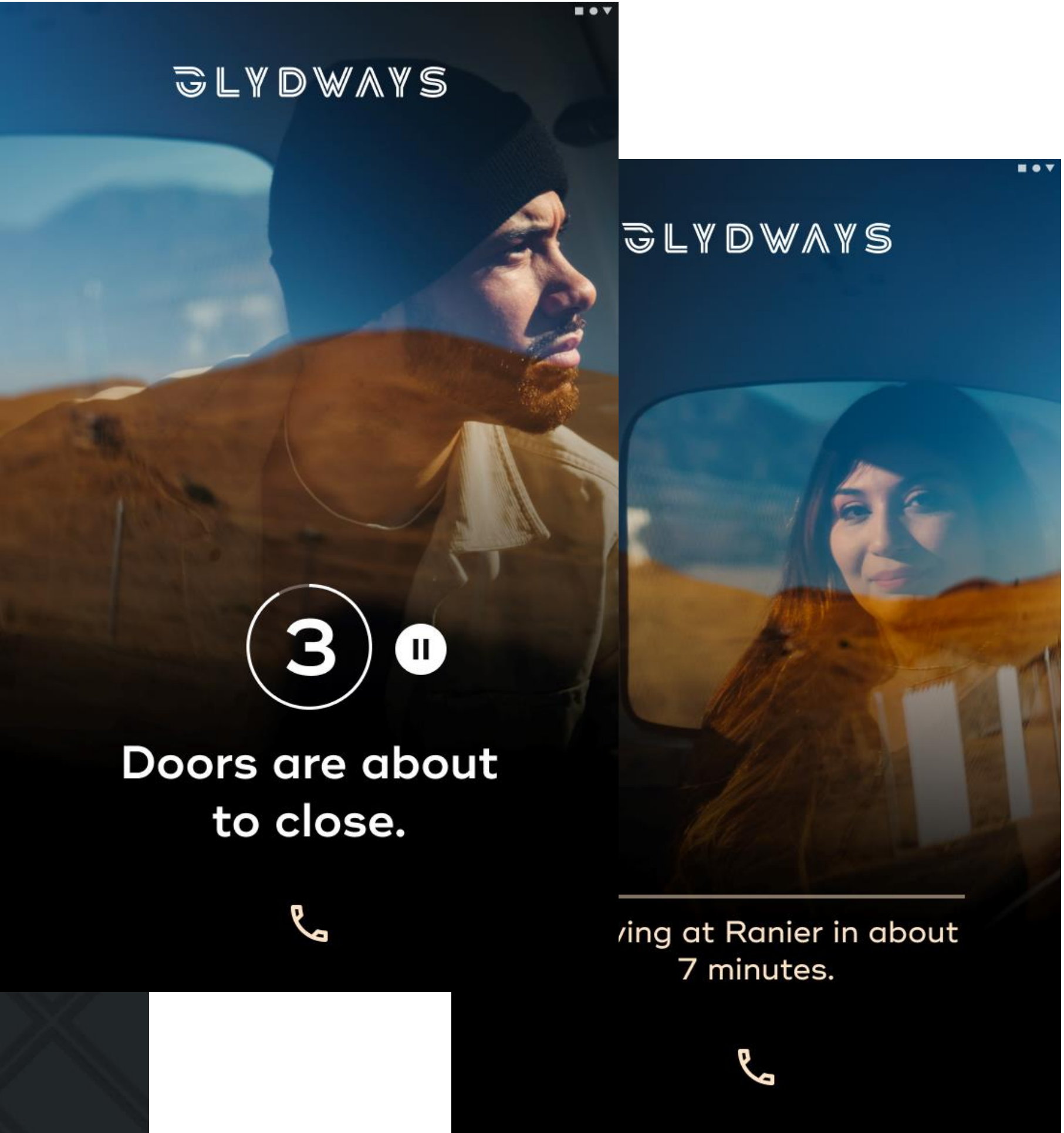
Phone or Transit Card



Phone/Kiosk
(booking/boarding)



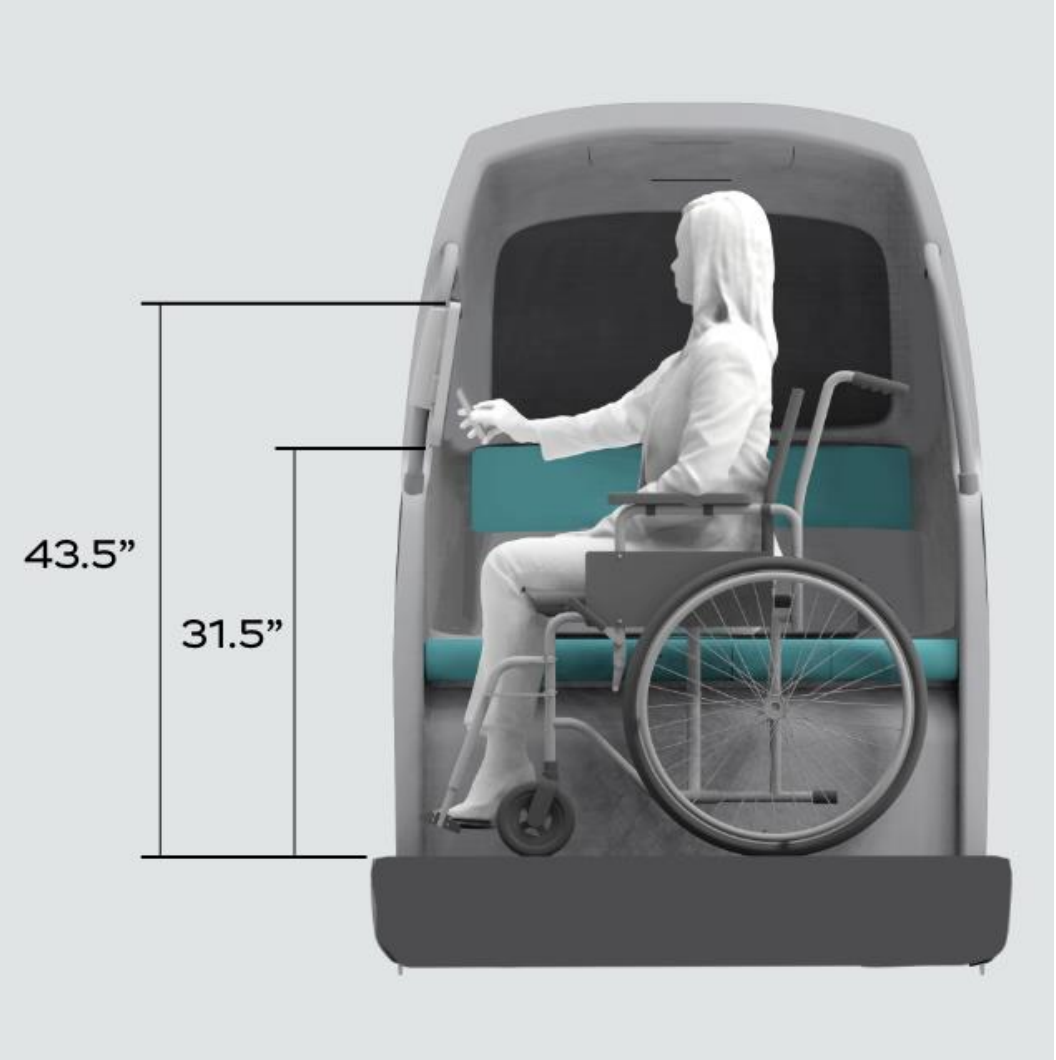
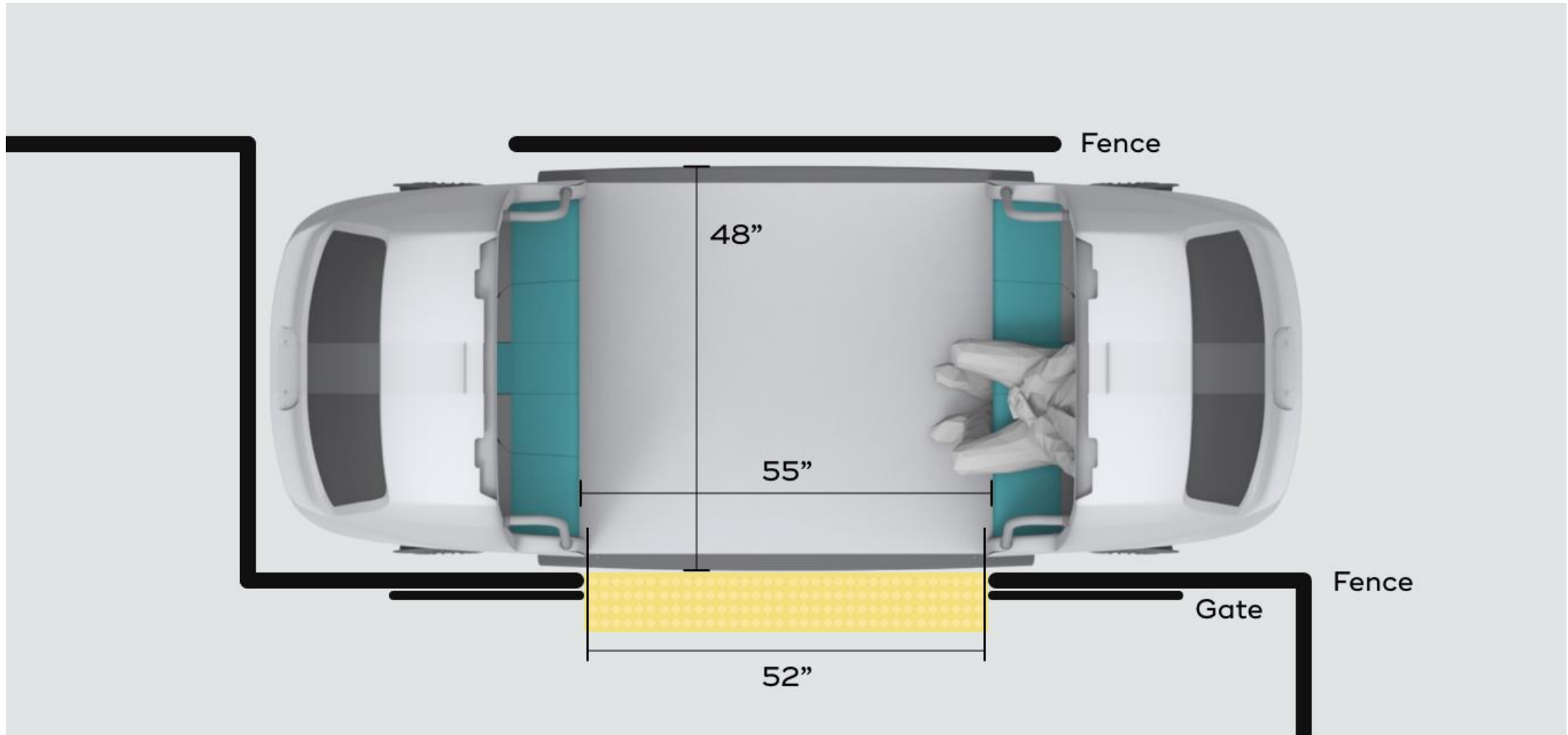
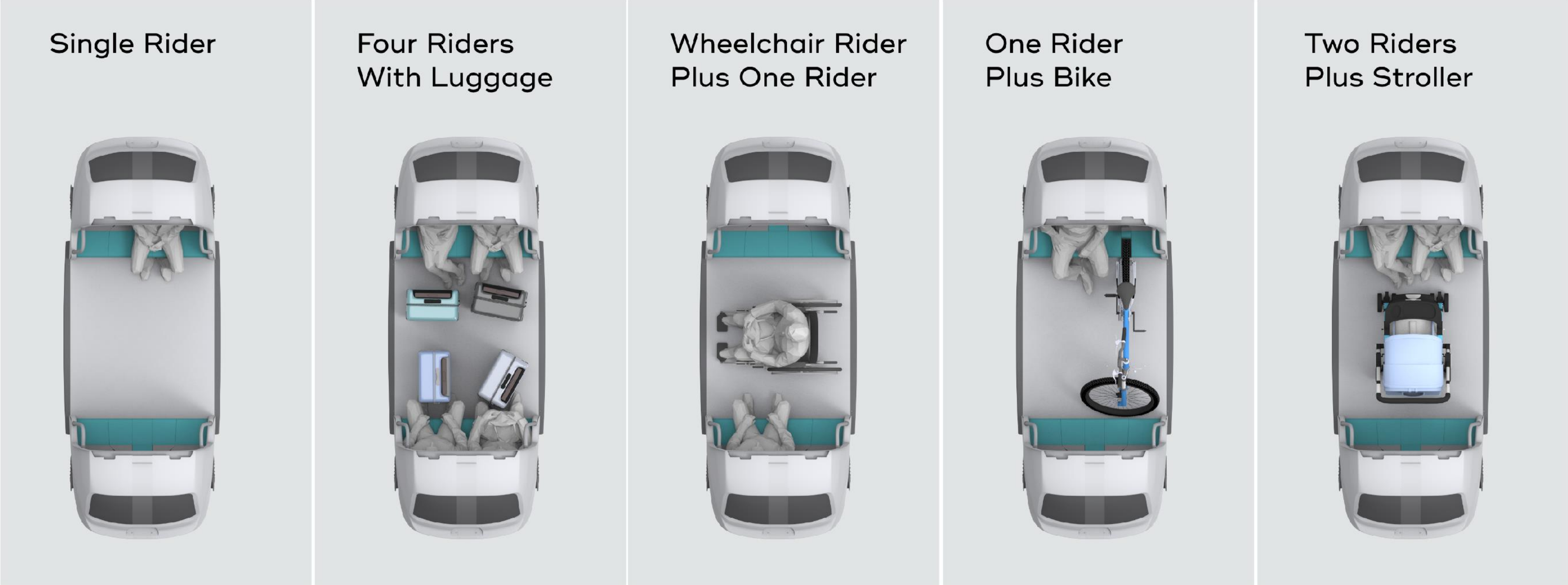
In Vehicle Display
(Claiming/Departing)



Phone
(Receipt)

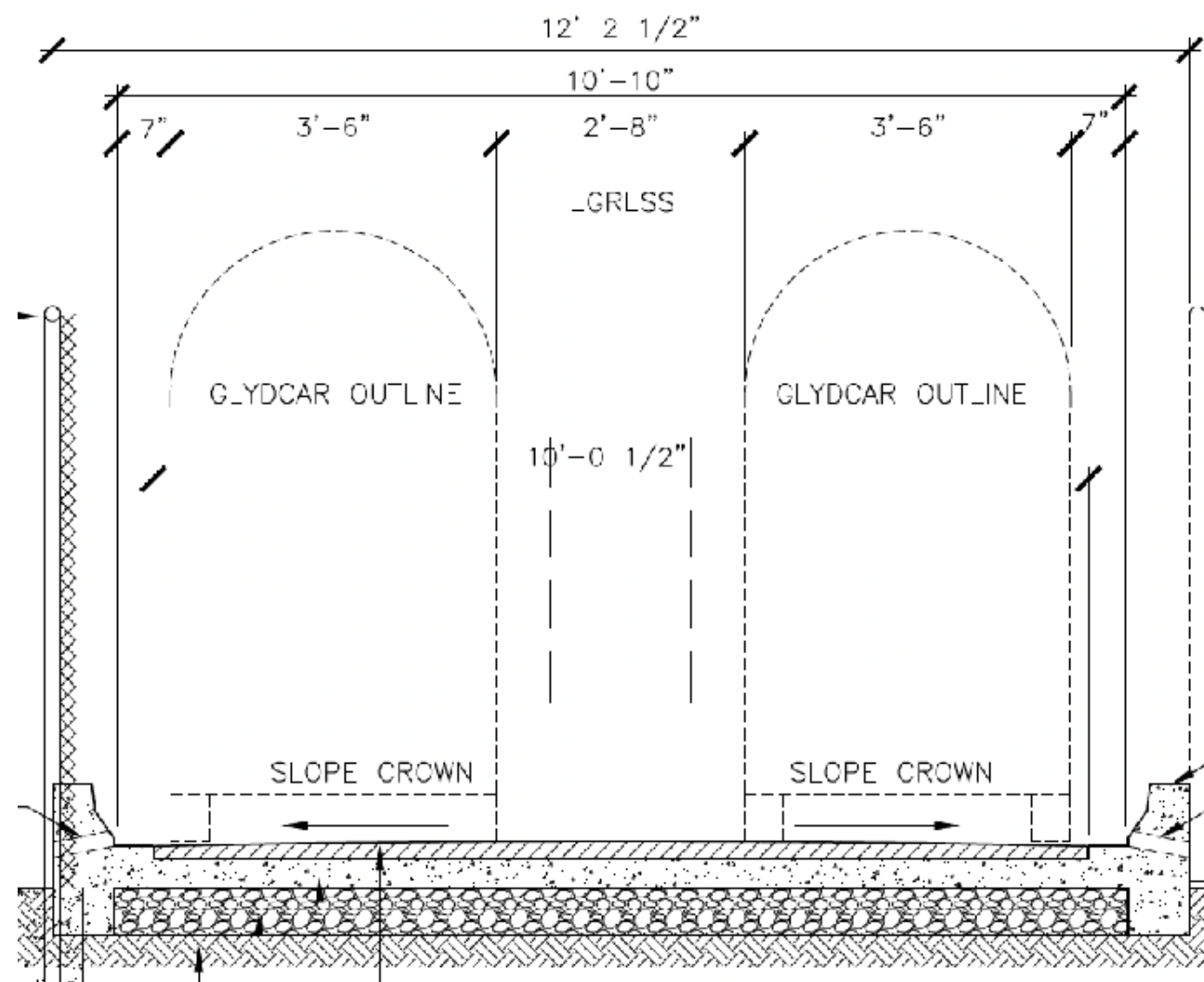
New Vehicle Dimensions

- 4 passengers
- 20"+ seat width exceeds 18" transit standard
- ADA compliant
- Bicycle and stroller able

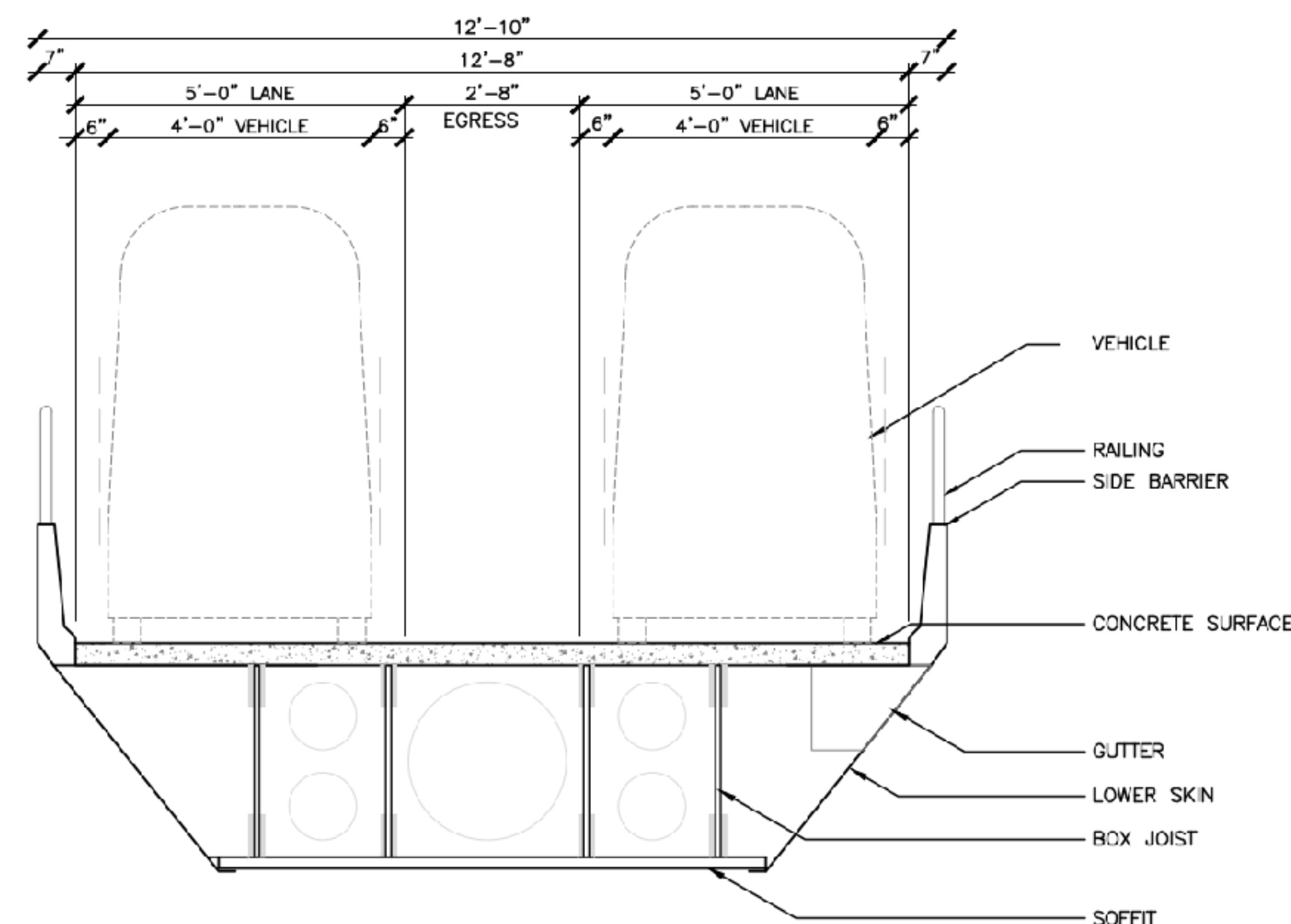


Infrastructure Development

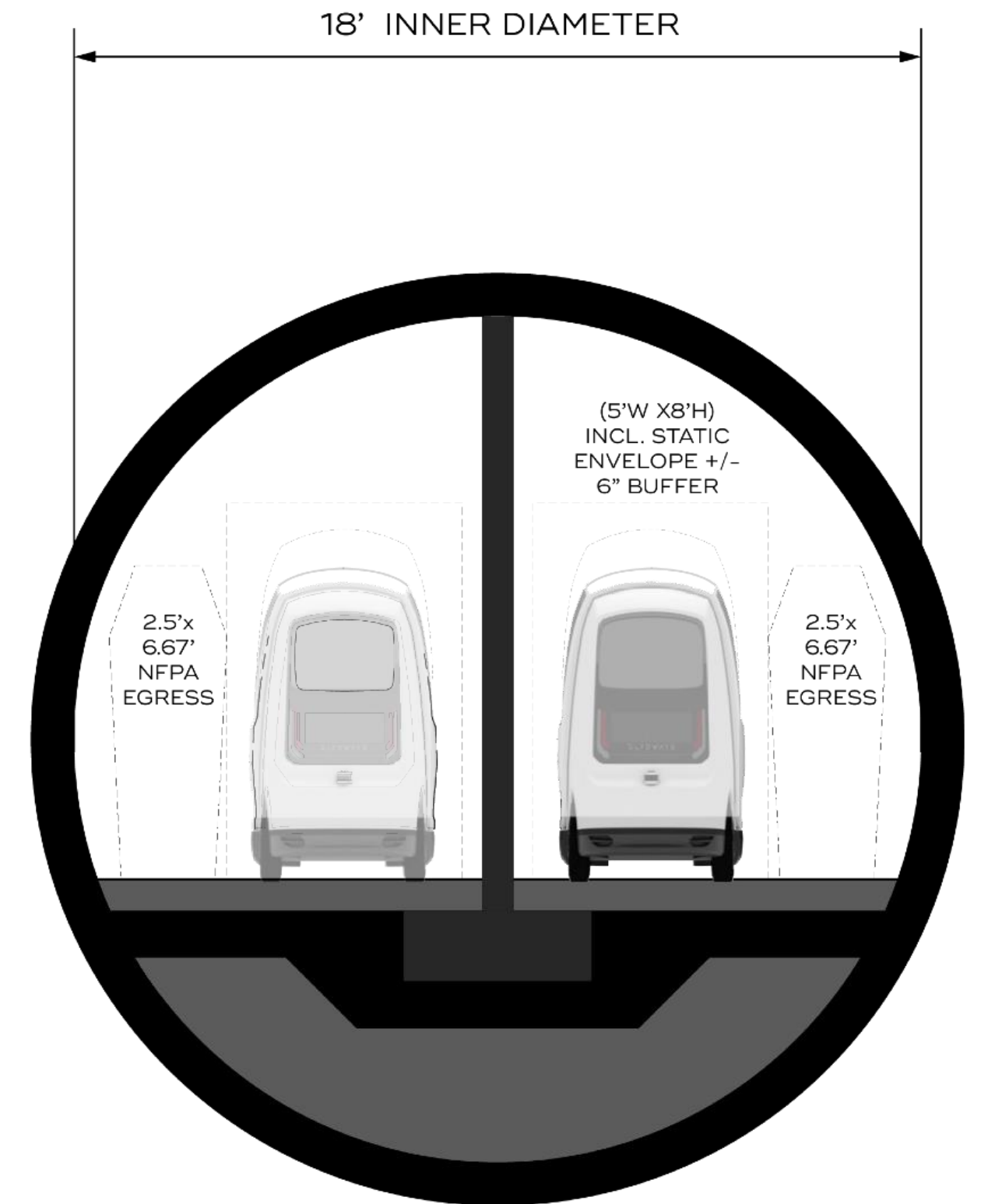
- Designed to standards: **NFPA 130**, **AASHTO/ CalTrans**.
- Collaborating with HNTB on design



Grade



Elevated



Tunneled

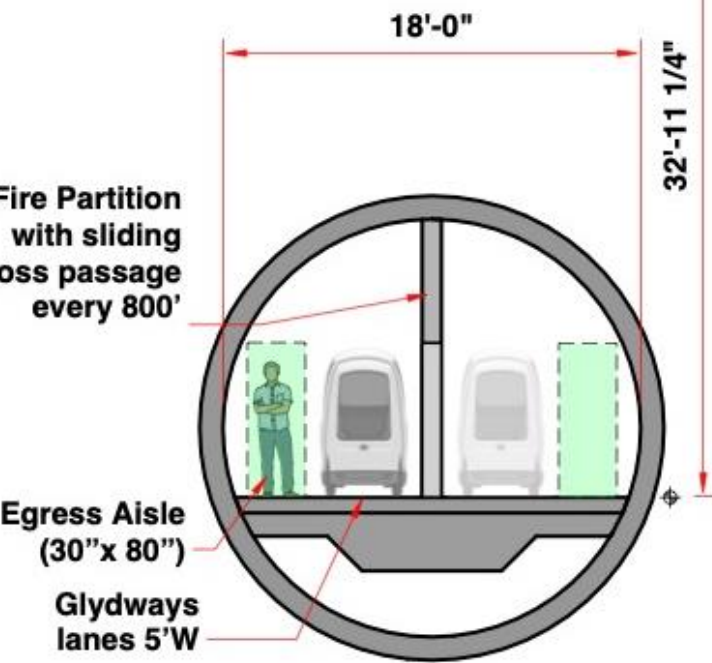
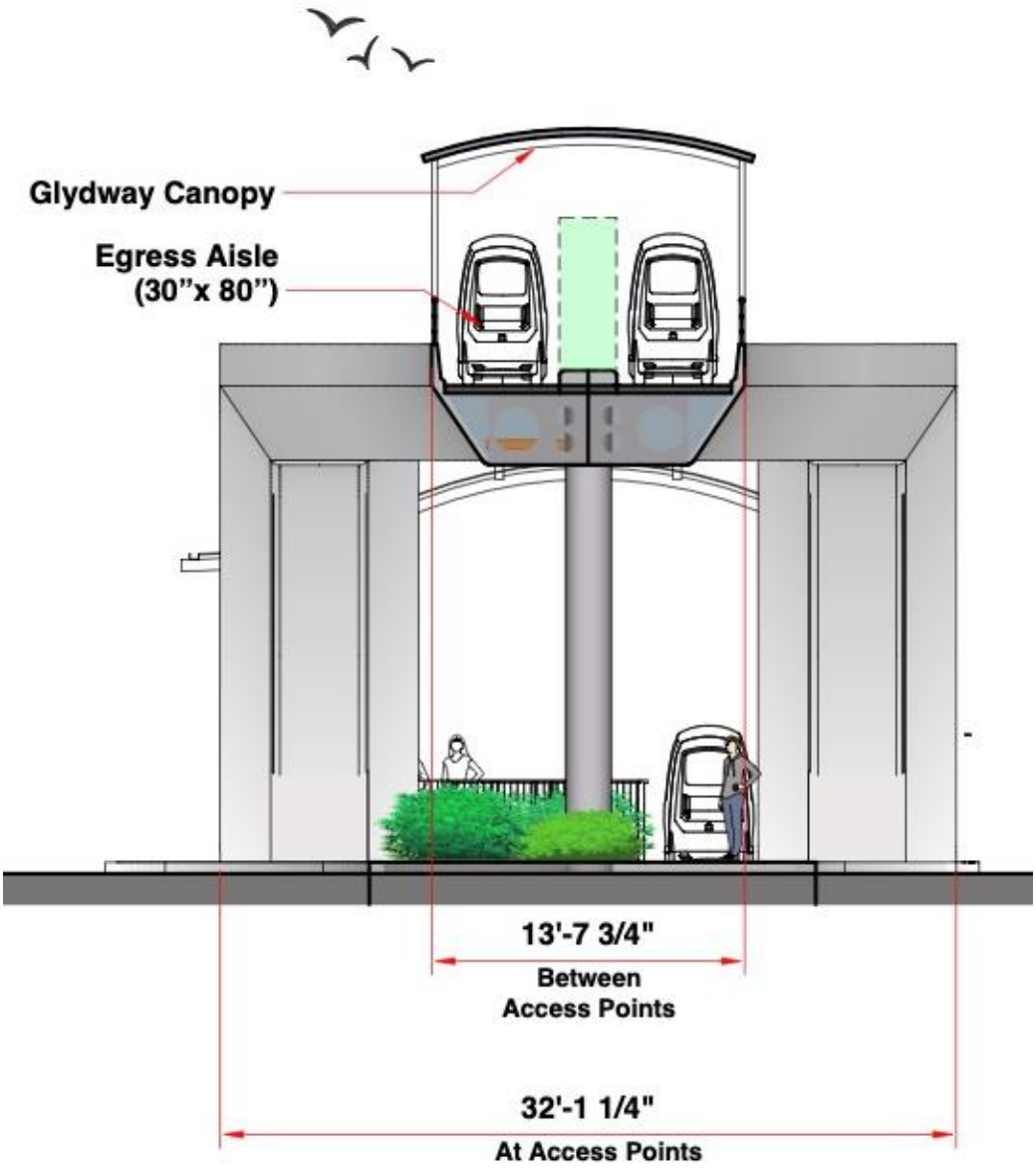
Glydways Infrastructure: Tunneling, single bore solution

Glydways
Single Bore Tunnel

Inside Dimension: 18'-0"

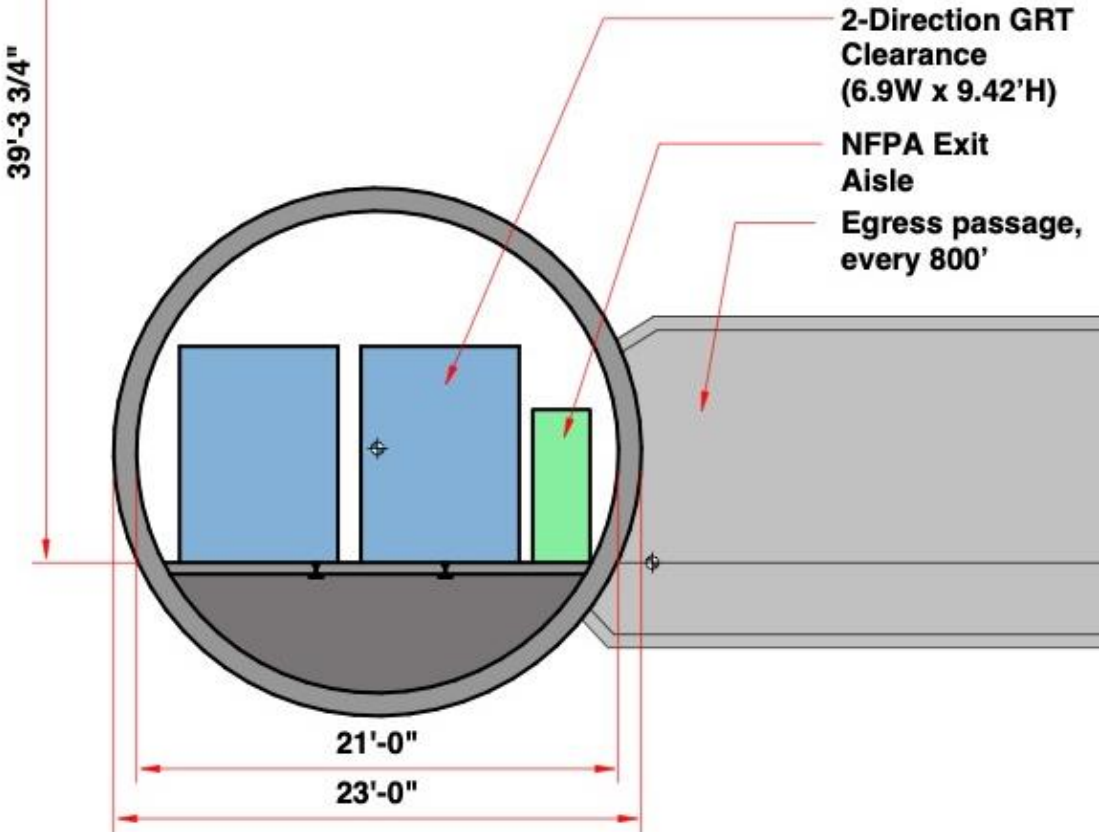


Elevated Glydway
2-Direction, Single Span
Narrow Median Cross Section

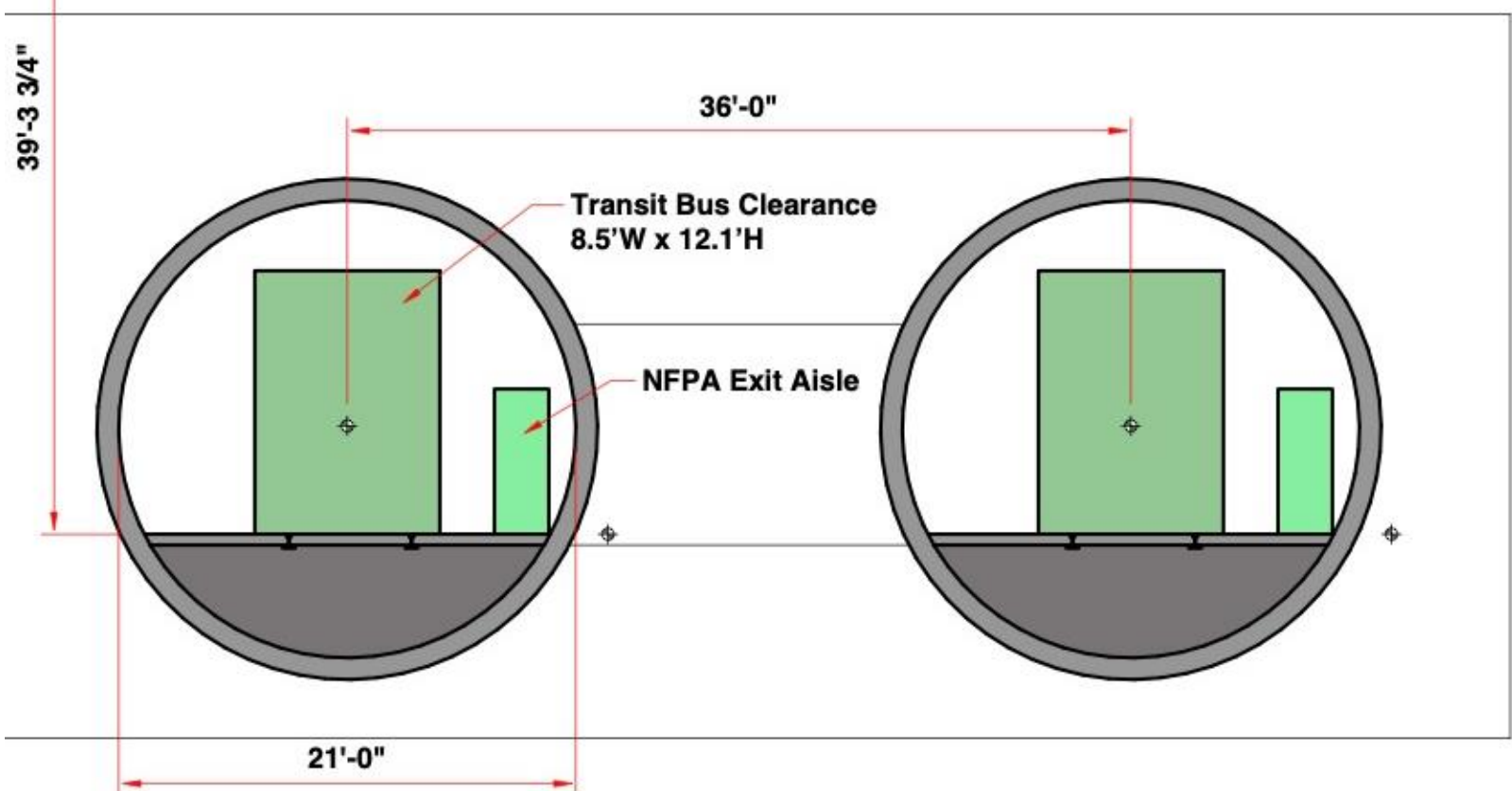


GRT
Single Bore Tunnel

Inside dimension: 21'-0"



Buses and Trains below ground require Two bores and cross overs adding size and cost



Access Point: Below Ground

Partition separates bypassing vehicles from boarding area. Opportunity for art, signage, etc.

Vertical circulation - Elevators and Stairs to street level

Easy access to each Boarding Spot. Number of Spots will vary by location demand.



Q&A



Thank you
Advanced Mobility Group