Regional Technology Committee Meeting
Thursday, August 7, 2025
Proposed Agenda

I. Call to Order - Andy Macke, Chair

II. Approval of the Agenda for August 7, 2025

III. Regional Transit Technology Assessment Plan

IV. Cumberland Sweep Update

V. Skytrain

VI. Adjournment

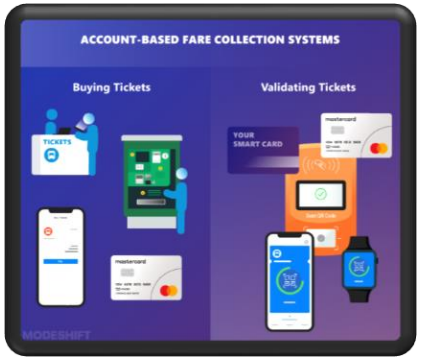
ATLANTA-REGION TRANSIT LINK AUTHORITY

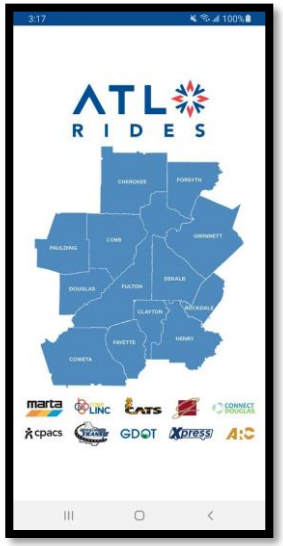
Regional Transit Technology Assessment

Jonathan Ravenelle
Chief of Planning, Strategy & Program Implementation
August 7, 2025

Recent Success

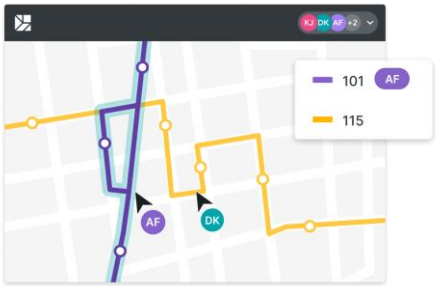
- ATL's 13-county region includes ten transit providers with five distinct types of transit services, each utilizing an array of technologies to provide service
- ATL and the region's transit providers have had recent success in implementing several coordinated technology initiatives





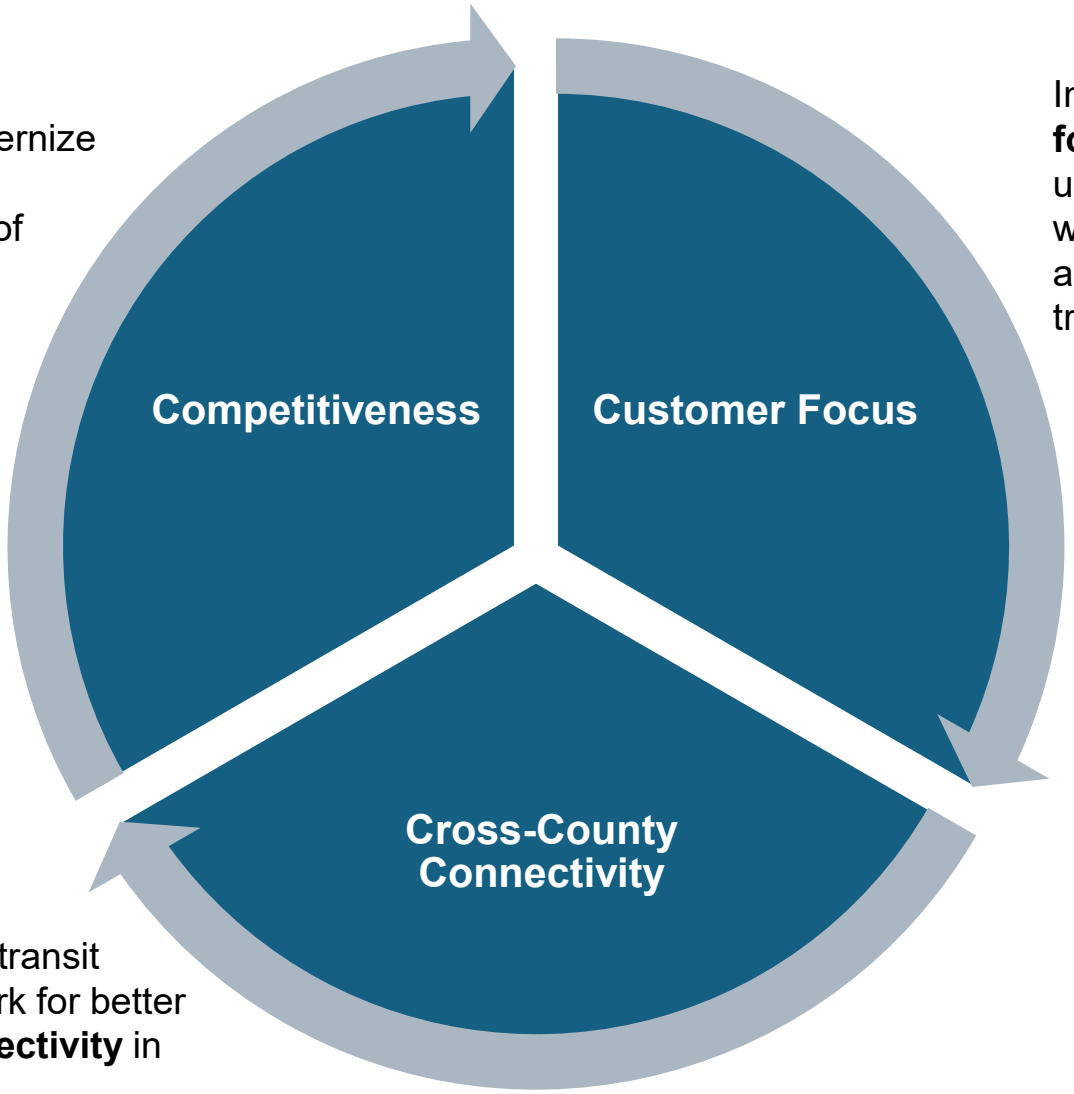
Continued Challenges

- Transit providers' technology systems still often operate independently of each other, leading to several challenges:
  - Interoperability issues preventing seamless travel across counties or between different transit systems, affecting both passengers and transit operations
  - Missed opportunities for shared services or economies of scale, which could reduce operating costs and improve service quality
  - Inconsistent customer experiences with different interfaces
  - Lack of unified strategy for existing and emerging technology within the region



Transit Technology Assessment - Outcomes

Utilize advanced technology to modernize and improve the **competitiveness** of regional transit operations



Improved **customer focus** by upgrading user interactions with, and satisfaction across, the region's transit services

Develop a cohesive transit technology framework for better **cross-county connectivity** in the Atlanta region

Transit Technology Assessment - Objectives

The Regional Transit Technology Assessment will:

- Ensure future technology investments support ATL's 3 C's
  - Competitiveness
  - Customer Focus
  - Cross-County Connectivity
- Inventory transit operators' current and planned technology systems
- Identify opportunities to coordinate and leverage economies of scale
- Capitalize on emerging technologies
  - Machine learning/Artificial Intelligence (AI)
  - Autonomous vehicle technology
  - Evolving fleet propulsion types (i.e. Hydrogen Fuel Cell)
- Develop a phased, actionable 5-year roadmap as input into the 2026 ARTP process and other regional funding and policy considerations

Transit Technology Assessment - Phases

- Evaluating the current landscape and future potential of transit technologies across the region's transit providers

(1) Technology Inventory

Thorough evaluation of existing transit technologies utilized by operators in the 13-county region

(2) Regional Technology Assessment

Evaluation of how existing transit technologies support ATL's 3 C's

- Competitiveness
- Customer Focus
- Cross-County Connectivity

(3) SWOT Analysis*

Identification of current successes and gaps in current technology framework. Evaluate opportunities and obstacles in the future

(4) Opportunities Mapping

Map potential for enhanced technology systems' alignment to improve coordination, interoperability and leveraging economies of scale

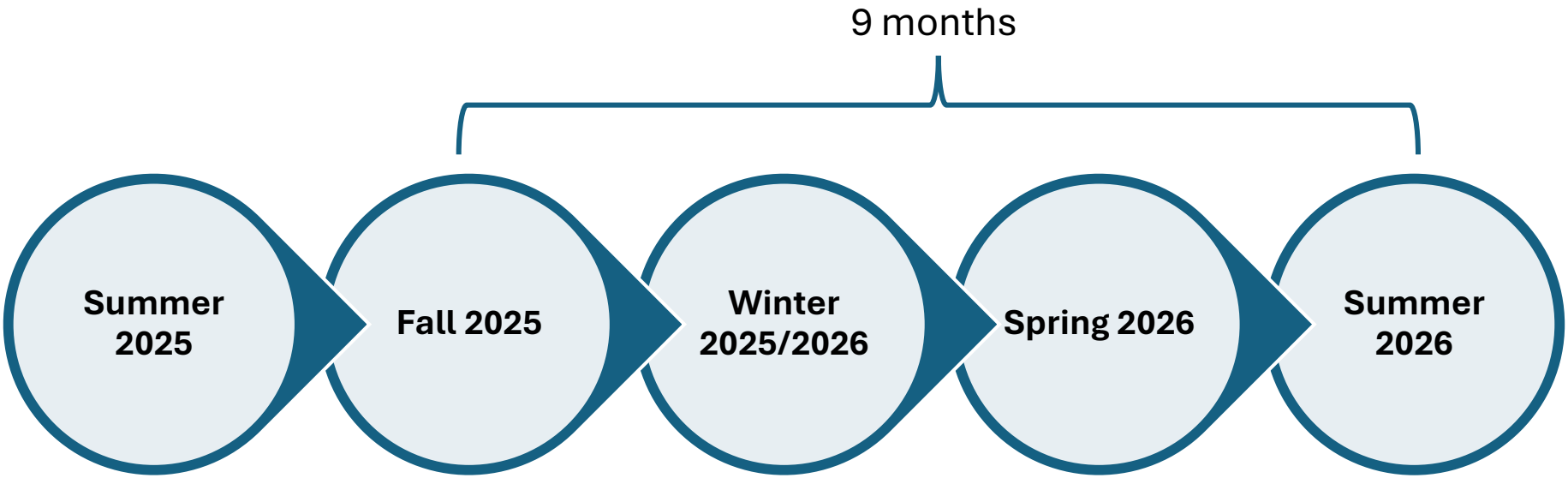
(5) Phased Implementation Roadmap

Dynamic strategies that serve as the catalyst for informing inputs into the 2026 ARTP process and other regional funding and policy considerations

*SWOT Analysis is the abbreviation for "Strengths, Weaknesses, Opportunities, and Threats"

Transit Technology Assessment - Timeline

Project Schedule*



*Subject to change

Thank you

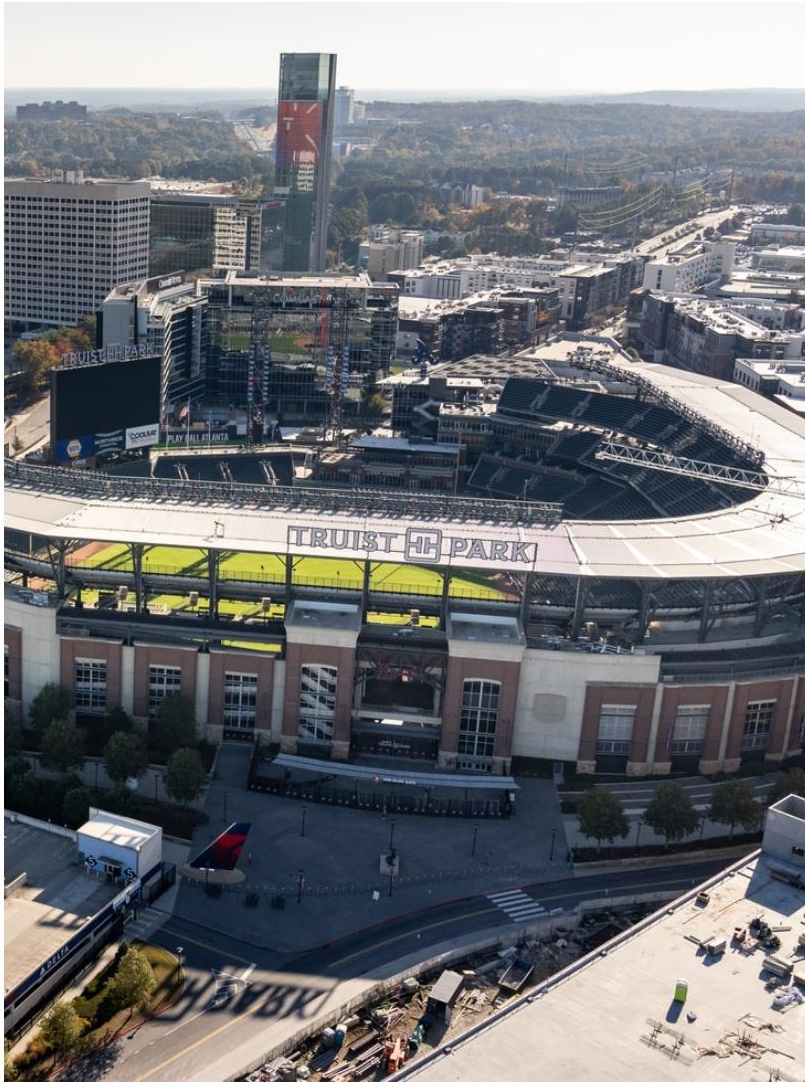
Questions?

CUMBERLAND
COMMUNITY IMPROVEMENT DISTRICT

CUMBERLAND AUTONOMOUS MOBILITY NETWORK

Atlanta-region Transit Link Authority - Regional Technology Committee

Kim Menefee, Executive Director, Cumberland CID & One Cumberland
August 7, 2025



THE CUMBERLAND SWEEP

Over $150 million project

- A three-mile multimodal path connecting Cumberland's major, employment, cultural, and entertainment destinations
  Key destinations: The Battery Atlanta, Truist Park (Atlanta Braves), Cumberland Mall, Cobb Galleria Centre, National Park Service
- Dedicated lanes for walking and biking
- An innovative Autonomous Shuttle System
  - CID conducted a ridership demand analysis
- Goal: To provide an innovative mobility solution to connect people to jobs and our employment centers

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WINDY RIDGE PARKWAY
SEGMENT E
I-75
INTERSTATE NORTH PARKWAY
& CUMBERLAND BOULEVARD
SEGMENT A
Interstate North Parkway
I-285
Windy Ridge Parkway NE
THE BATTERY
SEGMENT D
Heritage Ct
PEDESTRIAN BRIDGE NORTH
I-285
AKERS MILL ROAD
SEGMENT B
Akers Mill Road SE
Galleria Drive
I-285 PEDESTRIAN BRIDGE
I-75
GALLERIA DRIVE
SEGMENT C
PEDESTRIAN BRIDGE SOUTH
CUMBERLAND MALL
EXPANSION
SEGMENT F

CURRENT STATE OF THE SWEEP

- **Segment C – Scheduled for construction in Fall 2026**
- **Segments D, E & F - Preliminary & Engineering Phase**
- **Segments A & B – CCID to move towards PE in the near future**
- **Bridges – Bike & Pedestrian Only**
  - North Bridge – PE began last December
  - South Bridge - Renovation recently completed

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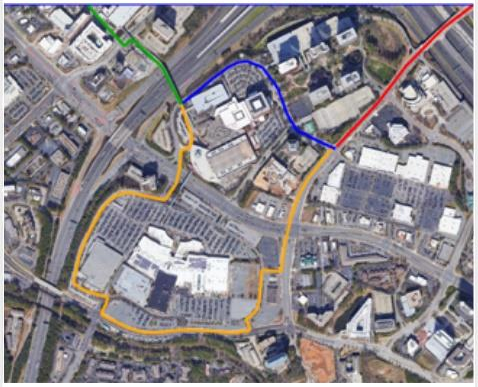
AV DEPLOYMENT & RIDERSHIP STUDY



- **Assessed each proposed segment for constructability issues**
- **Evaluated alternative alignments**
  - 3 Major Alt / 7 Minor Alt
- **Analyzed ridership**
  - 80% of peak hour trips touch Segment C
- **Assumed AV would be accommodated in separate lane/facility, less than roadway speeds (~15 mph)**

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COMMUNITY IMPROVEMENT DISTRICT

CUMBERLAND SWEEP: AV SHUTTLE PILOT PROGRAM (THE HOPPER)

- A partnership with Beep, a national leader in AV technology and operations
- July 2023 - December 2024
- Deployed on the I-285 Transit & Pedestrian Bridge and Galleria on the Park (5 class A office towers)
- Program Goals:
  - Learn and become a leader in AV technology
  - Raise Awareness
  - Educate public and key stakeholders
- Over 11,000 riders
  - 90 percent had a good experience riding the Hopper
  - 93 percent felt safe riding the Hopper
  - 87 percent support seeing more AV shuttles in the Cumberland area.

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AUTONOMUS VEHICLE EVOLUTION

Early Research & Demonstration (2018-2024)

- Developing a nascent technology
- Demonstrating viability
- Community Engagement
- Separate lane(s), less than roadway speed

Industrialization (2026-)

- Serial Production in the United States
- Regulatory Compliance
- Multimodal Integration
- Workforce Transitions
- In-lane, 35 mph

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CUMBERLAND CID/COBB COUNTY PARTNERSHIP & STRATEGY

Establishing an Innovative Mobility Network

Partnership

- **Collaboration with Cobb County DOT/COBBLINC**
  - Cumberland Transit AA Study
  - Existing command center
- **Establishing Cobb/Cumberland as a center of gravity for autonomous mobility**
- **Create and extend services for Cumberland retail, service, and hospitality workforce**

Community Engagement/Messaging

- **Transforming the way people can move about the community car-free**
- **Integrating shared AV services to extend the reach and ridership of the mobility network**
- **Workforce development**
  - Partner - higher education institutions
  - Training - first responders

Leverage Funding

- **Federal: Applied for Low or No (LONO) Emissions Grant Program**
  - Supports Innovation and domestic manufacturing
- **State: Transit Trust Fund Program**
- **Work with federal and state elected officials to support Cobb AV leadership**

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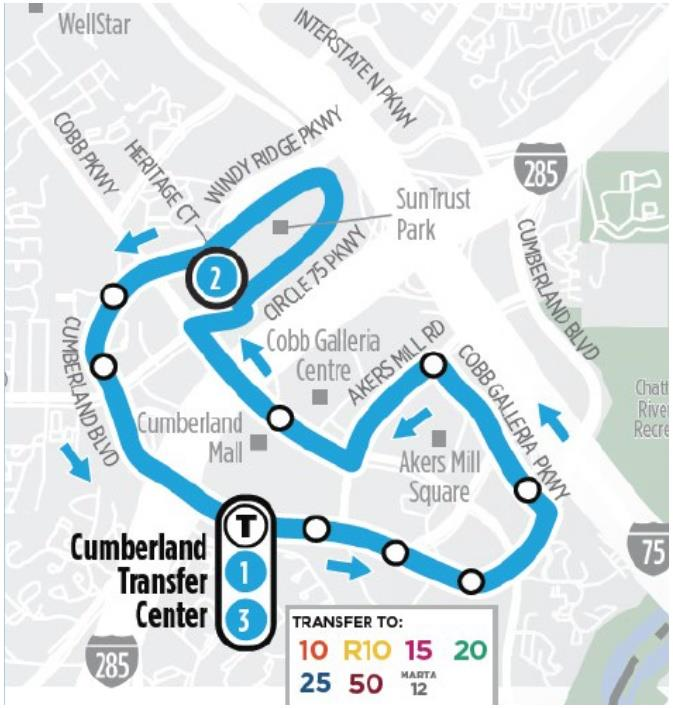
LONO APPLICATION - CUMBERLAND AUTONOMUS MOBILITY NETWORK

- **Cobb County & Cumberland CID applied for Low or No Bus (LONO) Emissions Grant**
- **LONO Grant Request: $7,734,526.32**
  - Federal Request: 6,632,101.05 - Local match: Cumberland CID: $1,102,425.26
- **HOLON shuttle service on CobbLinc's Cumberland Circulator modified blue route**
  - Beep's turnkey service to facilitate through CobbLinc (as transit authority)
  - Incorporates Sweep Segments C, D, E, and F and provides connection among The Battery, Galleria, Akers Mill, Cumberland Mall, Cobb Transfer Center, Smyrna
  - Opportunity to expand service based on Cumberland Transit AA Study findings (late 2026)
- **Grant Proposal**
  - 8 vehicles
  - 36 months of managed services
  - Dedicated local command center to establish statewide AV hub
  - Build upon the success of the Cumberland AV Pilot Program and AV Ridership Analysis
  - Grant featured a scalable solution



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I-285 BRIDGE / SWEEP SEGMENT D IMPROVEMENTS (TTF APPLICATION)

- **Partner with the ATL Authority (Transit Trust Funds) to support LONO grant request**
  - Cumberland CID applied for Transit Trust Funds on August 1
  - Grant Request: ~ $1,900,000
- **Transit Trust Funds Proposal**
  - Support capital improvements on Segment D of the Sweep, connecting transit service into The Battery Atlanta
  - A transit vehicle exit from I-285 bridge to Circle 75 PKY is needed to make right turn
    - Difficulty making the left onto Circle 75 PKY in close proximity to Heritage Circle intersection
  - Sweep Segment D currently in GDOT PDP process with construction in FY 2029
  - Using TTF would facilitate 2026-27 construction to facilitate LONO project
  - Support state's first AV shuttle system with HOLON shuttles

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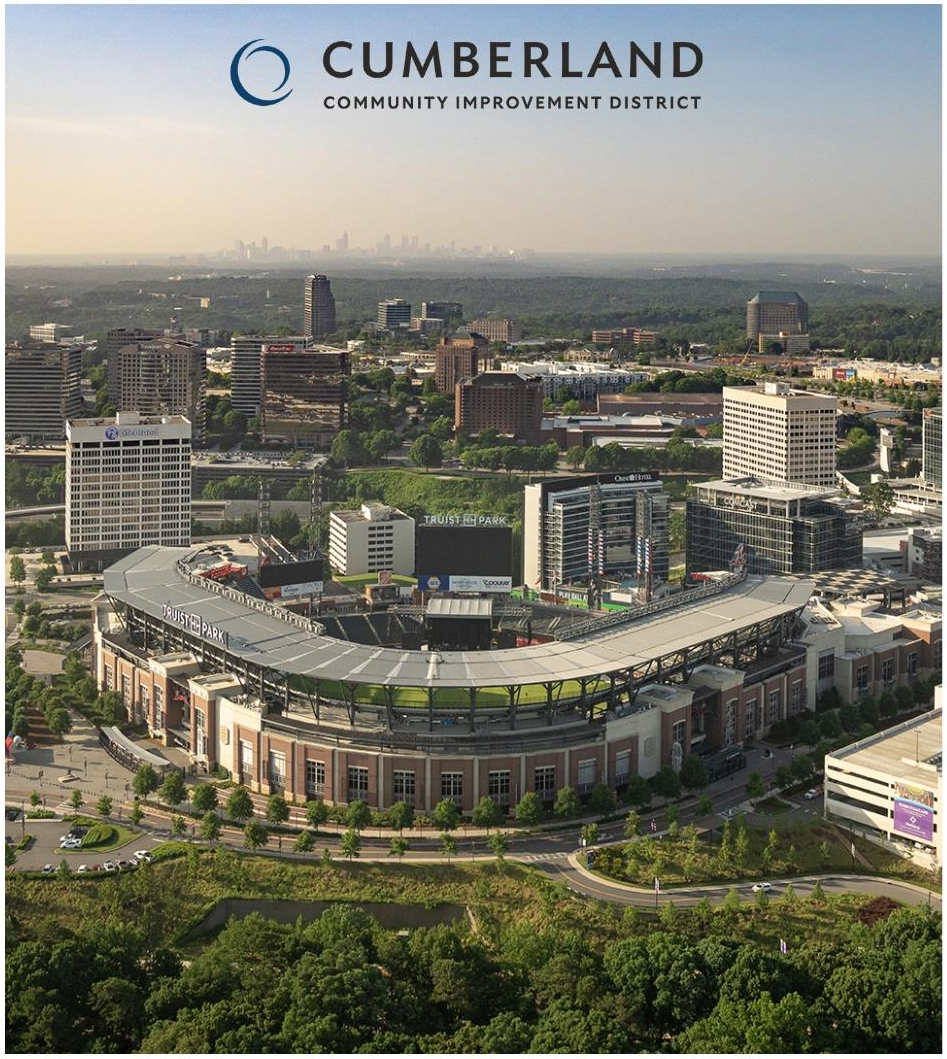
COMMUNITY IMPROVEMENT DISTRICT


Photo Credit: Atlanta Ballet


CUMBERLAND
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TRUIST PARK
TRUIST PARK

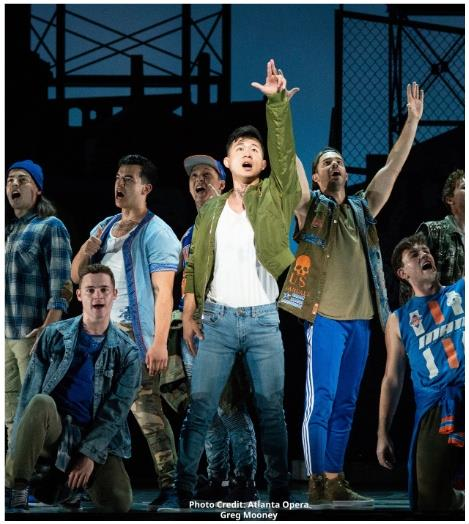


Photo Credit: Atlanta Opera
Greg Mooney

Thank you

Questions?

SKY AUTOMATED TRANSIT TECHNOLOGY

AUGUST 2025

Presenting Team

Jun Lin, CEO
GA Skytrain Mobility Group, LLC
Entrepreneur and CEO for 30 years
MBA, 2002 Chongqing University

Matthew Lesh,
SVP, GA Skytrain Mobility Group, LLC
Principal, Spectrum Mobility
Former USDOT, FTA
ASCE Committee Chair, Automated Transit Systems

BJ Martin, PE
Chief Engineer

Zhen Hu
Manufacturing

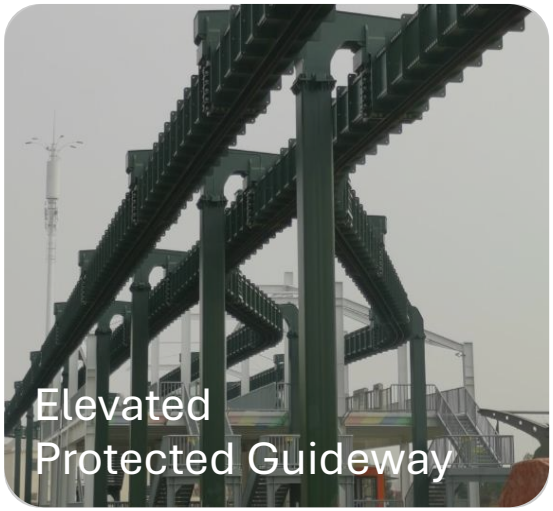
Roger Zhao
Business Management

Nick Buyers
Director of Logistics

The Evolution of Sky Automated Transit

Overview of Sky Automated Transit Technology

The Sky PRT system consists of three major components related to its direct operation:



Value Proposition

Existing Operations and Reporting

Advancing Equity

Capacity

Workforce Development

On-Demand Reliability

Economic Development

Resilience / Renewable Energy

Congestion Mitigation

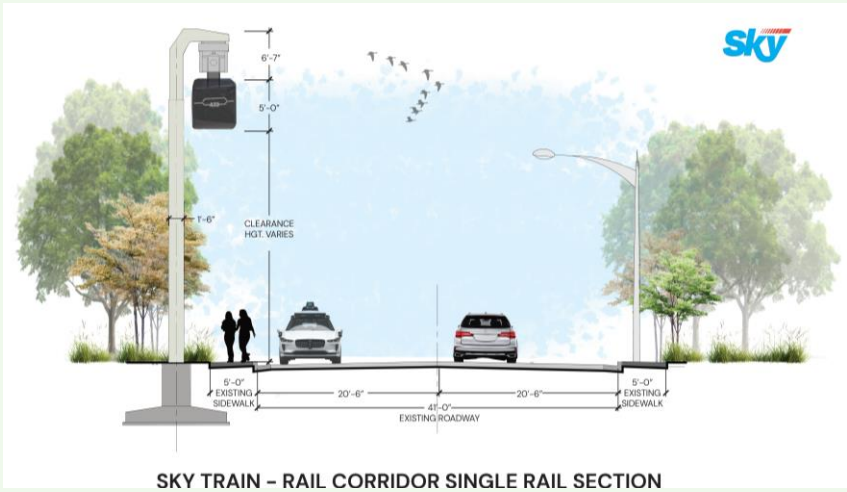
The Elevated Guideway

Unique Advantage

- Protected Guideway
- High Adaptability
- Static Infrastructure → Low O&M costs

- The guideway is made of beams supported by poles, suspending pod vehicles above ground.
- Its compact, static design—with no moving parts—requires no power or mechanical maintenance and fits within existing easements like roads, sidewalks, and railways.
- It can be visually adapted to its surroundings and will use both single- and dual-direction configurations.
- Standard spans are 78 feet, with 105-foot spans where needed.

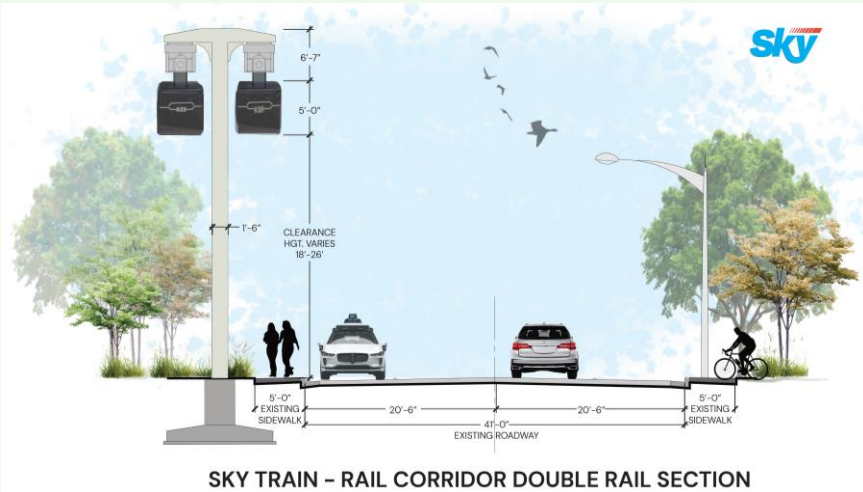
The Elevated Guideway: Single vs Dual



SKY TRAIN – RAIL CORRIDOR SINGLE RAIL SECTION

Single Guideway:

The width of the single track projected on the ground surface is 7.5’.



SKY TRAIN – RAIL CORRIDOR DOUBLE RAIL SECTION

Dual Guideway:

The width of the dual track projected on the ground surface is 13.5’.

The Elevated Guideway: Pole Foundation

- The specific parameters for foundation design and type will be determined on the geological conditions for each project and a study by geotechnical and structural engineers.

- The typical design for Sky PRT poles is that of a pile foundation with one of the primary types being suitable to soils and other infrastructure in the immediate vicinity.

The Pod Vehicle

Unique Advantage

- Safe, Reliable and Comfortable
- Adaptable Capacity

- Each pod vehicle is electrically powered from a rechargeable onboard battery.
- Propulsion is provided by low-voltage brushless DC motors that power four wheels.
- Pods are fully automated with no operator and travels at an average speed of 30 mph with 2 second headways.
- The pod vehicle is steerable, and all the switching is on board.
- The pod vehicle's body is located under the bogie, attached via a damped hinge.

Vehicle Systems Control

Unique Advantage

- Low Operation and Maintenance Costs
- Convenient and Scalable

- The software controlling other autonomous vehicles are extremely complex with rules-of-thumb probabilities, heuristics, and other non-deterministic algorithms.
- Sky PRT vehicle systems operate with deterministic control logic that is over 10,000 times less complex and more reliable than autonomous vehicles.
- Leveraging Grade of Automation 4 (GoA4) innovation in communication signaling and driverless technology, the Sky PRT system achieves precise control of vehicle-to-rail and vehicle-to-vehicle interactions.
- Automation seamlessly manages dispatching, movement, and guideway switching for exceptional “in-operation” reliability of over 99%.

Safety

- A Safety Program and Certification consists of system safety, system security, fire and life safety, and occupational safety.
- An Independent Safety Board (ISB) will be responsible for reviewing the project's safety program and certifying the system before starting public operations.
- The ASCE 21 Automated People Mover Standard (APM) may be applied to Sky PRT and intends to use the ASCE 21 APM standard for safety certification.
- Sky PRT will work with GDOT for achieving operational readiness and system safety certification.

Latest Acknowledgements:

- The only automated system of its kind that has “Open to the Public” operations with nearly two (2) years of service. This is “not” a proof of concept.
- Partnership with Georgia Tech to form a multi-disciplined team of students with education extending into the post-doctorial program covering Industrial Design, Civil, Arch, ISyE, MechE/MSE, ECE, Business Finance, and Legal Policy focused on modernization and adaptability in the United States.
- New facilities in Union City, Georgia are in early planning to provide advanced and experienced manufacturing for Sky Automated Transit Technology.

Sky

UNION CITY Georgia

GDOT Georgia Department of Transportation

Georgia Institute of Technology

ARC Atlanta Regional Commission

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Contact: info@ga-sky.com

Thank you

Questions?