

Future Transportation Planning

City Council Retreat, January 24, 2017



SANDY SPRINGS
GEORGIA



Retreat Transportation Objectives

- Create vision and goals
- Build Consensus
- Generate understanding related to transportation smart growth
- Encourage Innovation
- Update numbers related to population growth in the region
- Look at behavioral changes for all modes of transportation

Which way to our future for transportation needs?



If you don't know where you are going, you can't get there – Yogi Bear

Establishing the Need: State of Georgia

- 8th largest state (population)
- 24th largest (land mass)
- 10th largest (transportation network)
- 10th (annual GDP at \$507B)
- Atlanta is 9th most congested U.S. City (INRIX)
- ARC Survey – 2015
 - 91 percent find state transit important to Atlanta's future
 - 86 percent find connecting transit to jobs as essential
 - 44 percent find expansion of transit as best solution to traffic
- Future Projected Regional Growth
 - 2017: 5.5 million people
 - 2040: 7.8 million people projected



Vision Principles to Consider



Technology is Transforming Transportation

- Ability to conveniently request, track and pay for trips via mobile devices is changing the way people get around
- Shared Mobility and Transformation of Public Transit Analysis (March 2016) for the American Public Transportation Association found:
 - The more people use shared modes, the more likely they are to use public transit, own fewer cars and spend less on transportation overall
 - Shared modes complement public transit, enhancing urban mobility
 - Ridesourcing (Lyft, Uber, etc) services are most frequently used for social trips between 10 pm - 4 am, times when public transit runs infrequently or is not available
 - Shared modes will continue to grow in significance
 - New Jersey town is paying Uber instead of building a parking lot, freeing up 100 parking spots at transit station
 - Massachusetts Bay Transportation Authority is subsidizing Uber and Lyft rides for customers with disabilities

Fundamental Shift in Transportation

- Dense cities will lead the way to shared mobility
 - Electric vehicles
 - Autonomous vehicles
 - Mobility businesses such as Uber
- Individually, each has potential to be disruptive
- Combination within one setting could create seismic shift in how we get around



Other Impacts

- **Bloomberg New Energy Finance Report** conducted with McKinsey, measured impact of current trends, combined with:
 - The internet (which will connect vehicles together)
 - Drift toward urbanism (more dense and crowded metros)
- **Report Conclusion:**
 - Some cities could move rapidly to shared, on-demand, door-to-door private transport
 - Move away from internal combustion engine cars and traditional public transit
 - Costs of commuting via public transit - versus - shared, self-driving vehicles may converge
 - Travelers could decide to shift from public transit to shared mobility, especially as convenience of a door-to-door on demand offering is compelling

Challenges to Consider

- Planning
 - Parking
 - Shared Mobility Hubs
 - Curb Management
 - Wayfinding
- Technology Implications
 - Autonomous Vehicle technology – impact on infrastructure, data and more
 - Current operational strategies and investments need to consider how connected automation will change how we provide services
 - May increase transit use by providing first/last mile access
 - May supplement or replace transit over time

Addressing the Future in Transportation

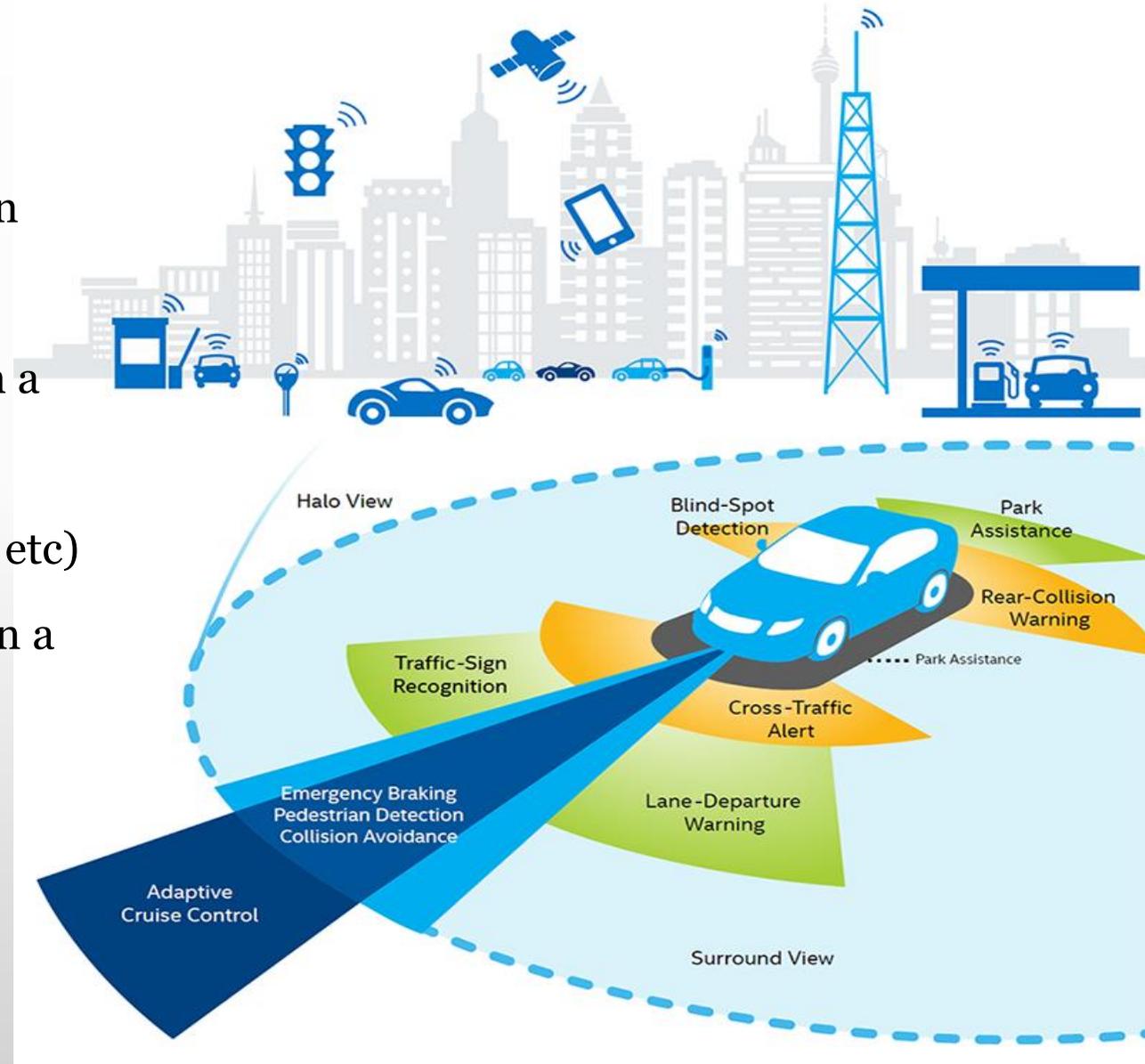
Think Differently



Connected Vehicle (CV)

- V2V: Bi-directional information sharing between vehicles
- V2I: Bi-directional information sharing between a vehicle and the Infrastructure/Roadway (traffic signals, traffic Signs, parking gates and meters, etc)
- V2X: Bi-directional information sharing between a vehicle and X (pedestrians, cyclists, trains, etc)

Connected Vehicle Pilot programs in Wyoming, New York City, Tampa and Atlanta (GDOT)



Connected Vehicle, Automatic Vehicle, and Autonomous Vehicle

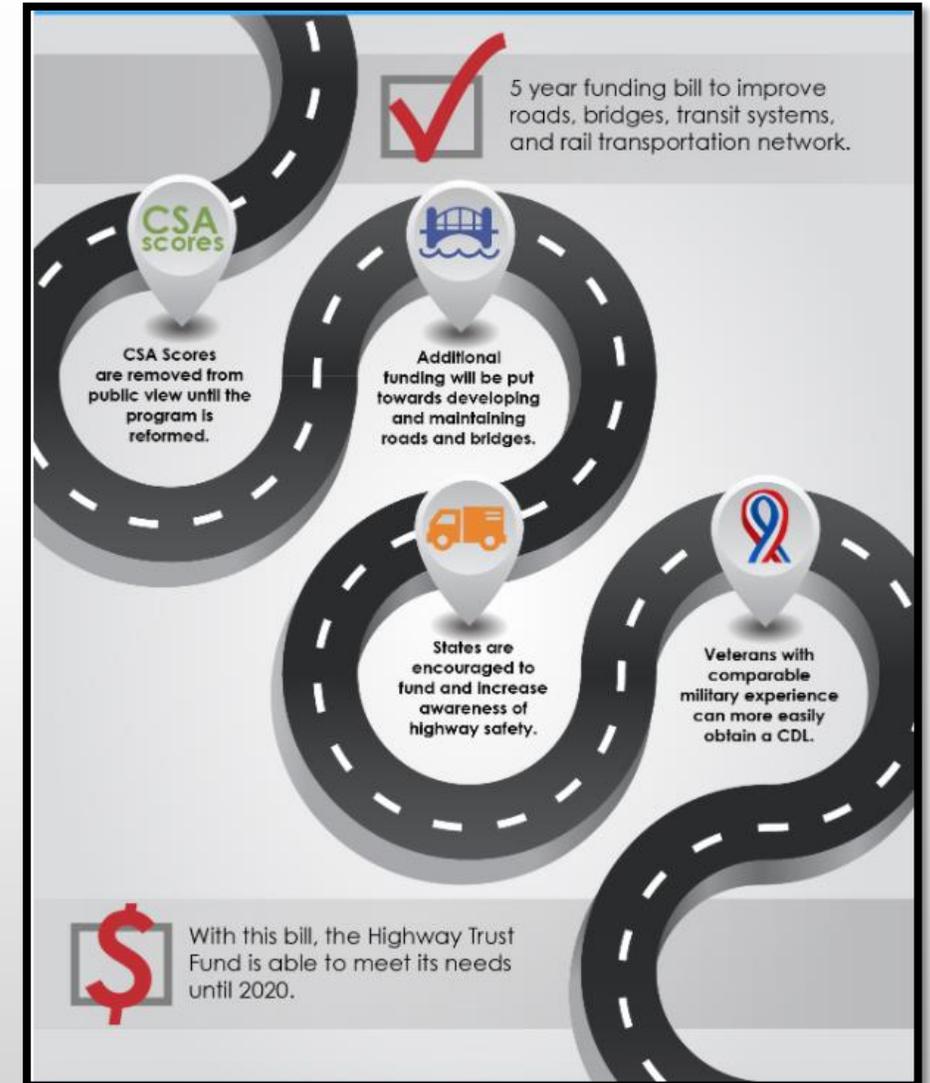
<https://www.youtube.com/watch?v=co7c354ivjc>

Evolving Vehicles Into the Future

- An automated vehicle makes its own decisions about how to act, whether or not it communicates with other vehicles.
- An autonomous system is independent, self-contained: rather than talking to other vehicles, it simply uses its own sensors.
- A connected vehicle uses vehicle-to-vehicle (V2V) technology to communicate with other vehicles, or vehicle-to-infrastructure (V2I) technology to communicate with stoplights or the like, or vehicle-to-everything (V2X) technology to communicate with other equipped entities, whether or not it makes its own decisions.
- An automated vehicle may be connected or not connected; a connected vehicle may be automated or not automated.

Federal Level

- FAST Act: Fixing America's Surface Transportation Act
 - Authorized federal surface transportation programs through Fiscal Year 2020
 - Focus on Nationally Significant Freight and Highway Projects (NSFHP)
 - Streamlines environmental review and permitting process
 - Promotes Innovative Technologies
 - Focuses on Highway Safety



State

- Comprehensive Infrastructure Maintenance Plan
 - Released by Georgia Governor Nathan Deal January 12, 2016
 - Administered through the Transportation Funding Act of 2015
 - \$2.2 billion investment, 18-month project list
 - Accountability: www.Garoads.org tracks spending and progress

“In order to maintain our roads and bridges, improve congestion and accommodate the movement of freight traffic, we could no longer afford to kick the can down the road. Legislators on both sides of the aisle took action, working together to pass legislation addressing these critical needs. Today, we are delivering on our promise.” – Governor Nathan Deal, January 12, 2016

PLANNED PROGRESS: ADDRESSING CONGESTION THROUGH INNOVATIVE MOBILITY INVESTMENTS



331 new lanes miles added—
79 general purpose lane miles;
176 Express lane miles and
76 truck lane miles

***13,000** additional
long-term permanent jobs

***\$1 billion of additional personal
income** for residents throughout
the state

\$2 billion— Estimated growth in
Georgia's Gross State Product

***5% reduction** in delay for auto
and truck vehicle traffic statewide

***Do Nothing by 2030:**

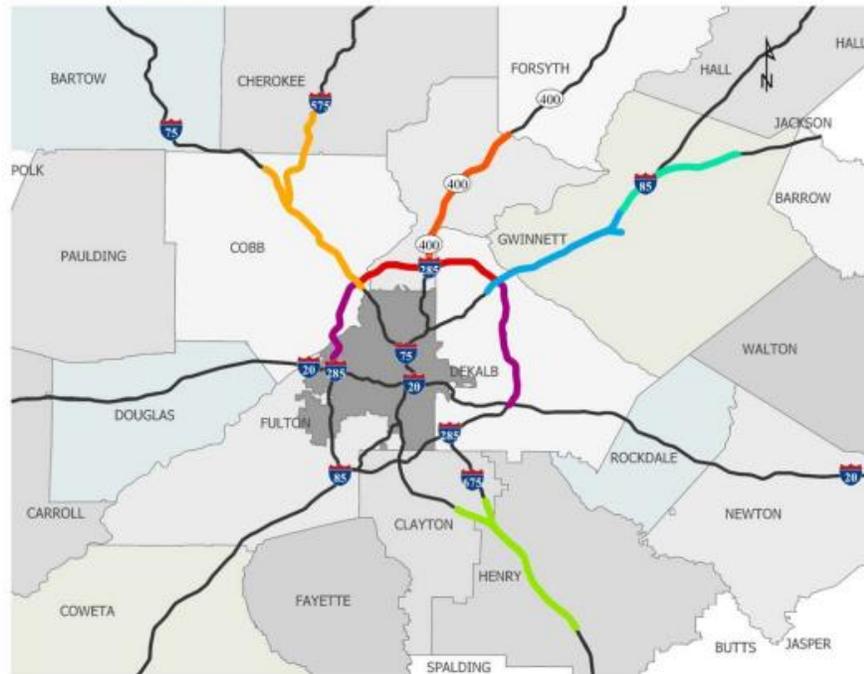
- Additional 1.5 million vehicle miles traveled daily
- Additional \$4.7 million in congestion costs daily
- 26,000 people lose 8 hours daily

*Results are based on all projects being built and operational. Figures are estimated from modeling analyses.

11 new major investment roadway projects will provide **new lanes** and **new capacity** and **new choices** for all motorists. Additional safety and operational improvements will **grow Georgia's economy bigger and faster.**

www.GAroads.org

Georgia's Major Mobility Investments



- I-85 Express
- I-75 South Metro
- Northwest Corridor
- I-85 Express North
- Revive 285
- GA 400 Express
- I-285 East Wall
- I-285 West Wall

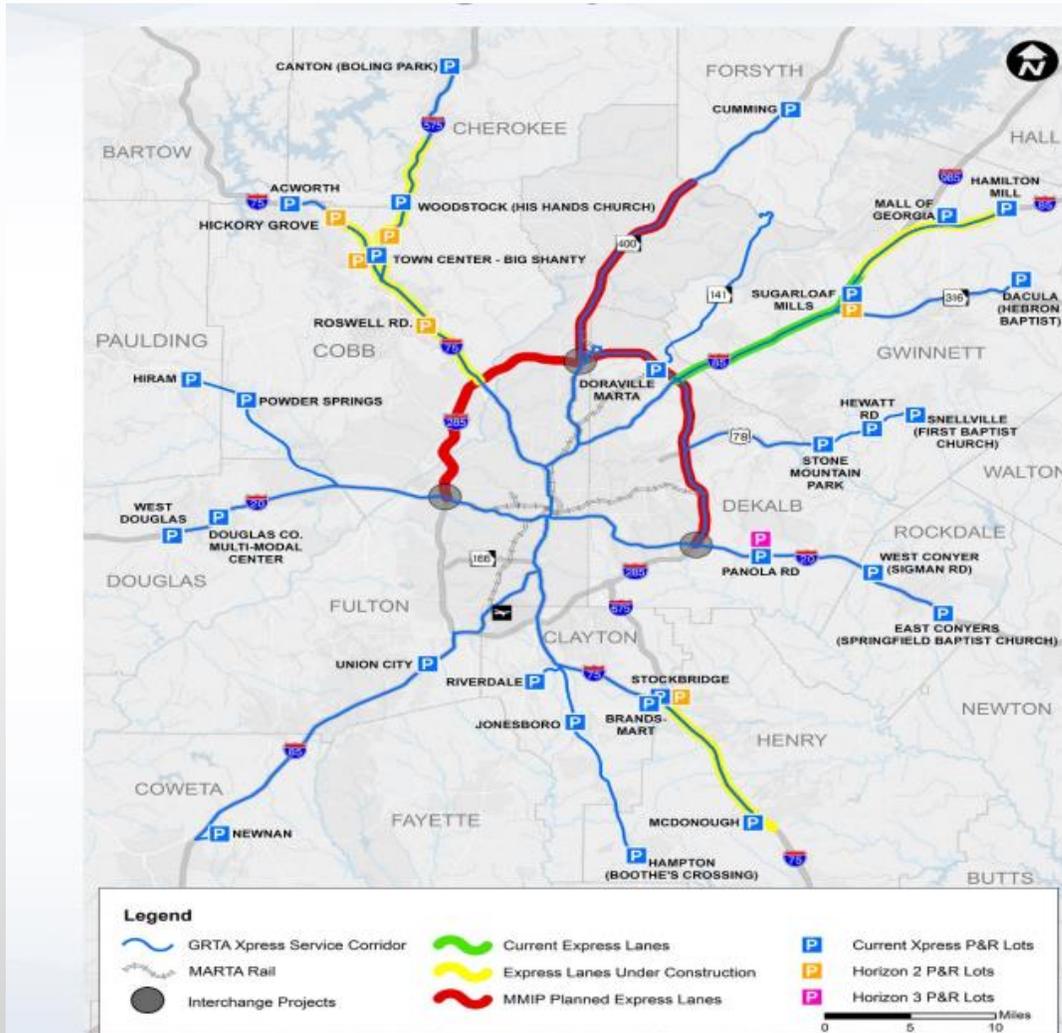
PROJECTS OPENING IN THE NEXT 2 YEARS

- I-85 Express (already in operation)
- I-75 South Metro Express – January 2017
- Northwest Corridor Express – Spring 2018
- I-85 Express Extension – Fall 2018

MAJOR MOBILITY INVESTMENTS IN NEXT 10 YEARS

- I-285E Wall Express Lanes
- I-285W Express Lanes
- Revive 285 Express Lanes
- GA 400 Express Lanes
- I-75S Truck Only Lanes
- I-16 Truck Only Lanes

Coordinating Express Toll Lanes and Xpress Transit Service



Existing and future Xpress service will leverage Express Lanes to provide better, more reliable connectivity to employment centers in Downtown, Midtown, and Perimeter Center.

Local: MARTA

- Atlanta Half-Penny Referendum Passes: November 2016
 - Future Rail system includes 45 miles of high capacity transit service; 23 new stations; two maintenance facilities allowing for almost 100,000 new transit riders



Local: T-SPLOST - \$103M

- Traffic Efficiency Improvements
- Perimeter Transit Last Mile Connectivity
- Sidewalk Program
- Johnson Ferry/Mt Vernon Efficiency Improvement
- Hammond Drive, Phase 1 Efficiency Improvements
- SR 400 Trail System (Tier 2)
- Roberts Drive Multiuse Path (Tier 2)

Next Steps:

- Planning Initiatives – Short Term
- Planning Initiatives – Long Term
- Creativity and Flexibility in Thinking