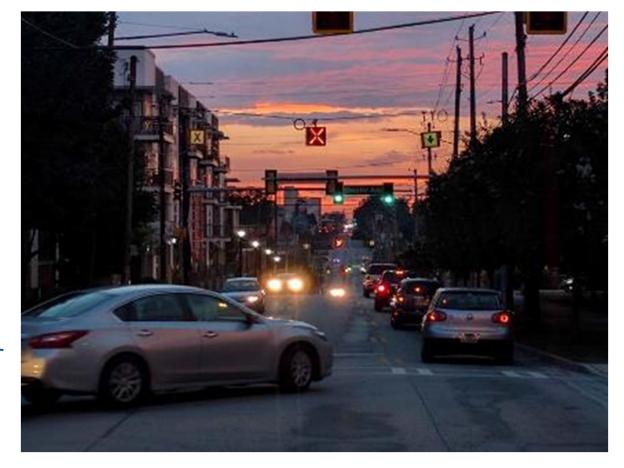


# Regionalization Efforts

ITS Carolinas Andrew Heath, P.E., State Traffic Engineer



# Overview

#### Regional Connected Vehicle Initiatives

- Inclusion in Regional TSMO Plan
- Direct engagements with Local governments through regional framework

#### Joint Agency Data Acquisition Group

- Initiated through Regional TSMO Plan
- Multi Party working group
- Identify efficiencies and savings in Data Acquisition/Utilization across agencies

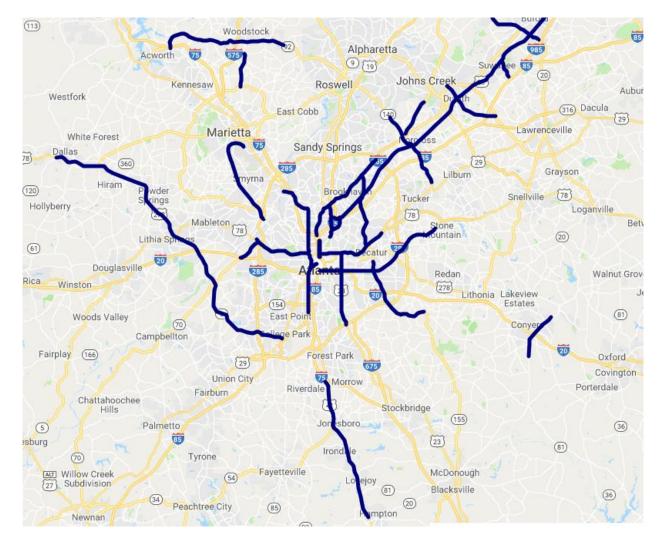




# **GDOT Connected Vehicles**

#### Connecting the Metro Atlanta Region

- As of 2/5/2021:
  - 654 locations licensed and installed to date through GDOT SigOps program
  - 722 proposed locations through ARC partnership program
- Active Efforts:
  - Empowering Transit: ATL Transit Priority
  - Moving Freight: GPA pilot for ingress/egress
  - Improving Emergency Response: Preemption for first responders
  - Working with Locals: ARC and Locally driven regional program







# **GDOT Connected Vehicles**

#### Working with Locals

Locally driven regional deployment of connected vehicle infrastructure

Partnership between GDOT, ARC, and locals

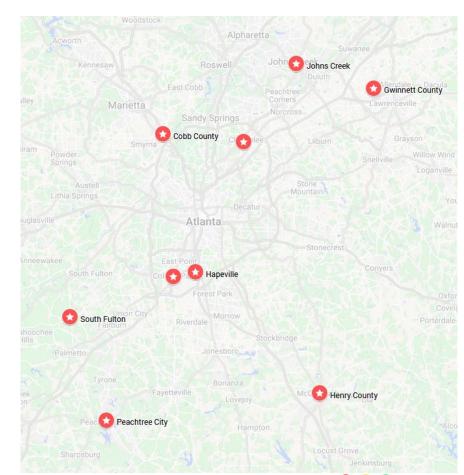
Multi-phase, multi-year program targeting 1,000 intersections

722 proposed intersections as of 2/26/2021

 Designed for improving mobility and safety for locally needed use cases











#### Find Synergistic Opportunities to:

- Lower costs
- 2. Enhance data analytics capabilities
- 3. Eliminate unnecessary duplication

#### Responsible for:

- 1. Developing an interagency program charter
- 2. Identifying a funding plan
- 3. Developing guidelines and/or policy recommendations for data acquisitions



#### Interoffice Memo

DATE: August 3, 2020

FROM: Andrew Heath, P.E., State Traffic Enginee

Margaret Pirkle, P.E., Chief Engineer & Jannine Miller, Director of

Planning

SUBJECT: Joint Agency Data Purchasing Program - Request for Approval to

Create Working Group

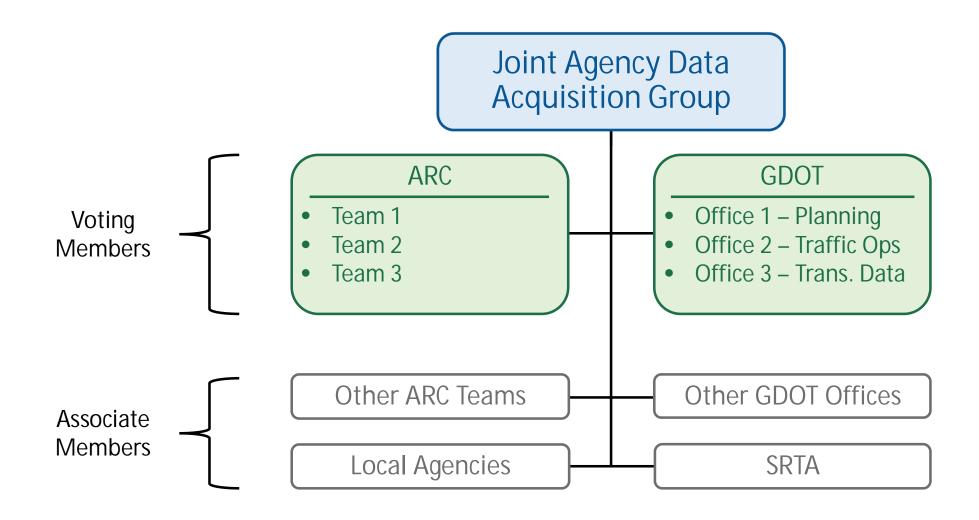
Transportation agencies throughout Georgia have an opportunity to increase planning and engineering efficiencies while reducing financial expenditures by strategically addressing missing, incomplete, and duplicate datasets. In the past five years, third party datasets have matured to a degree acceptable for the purposes of planning, designing, and operating roadways, and these datasets can now be delivered at a fraction of the cost and time of traditional data gathering methods. By moving deliberately to achieve the goals set forth in GDOT's overall mission, ARC's TSMO Strategic Plan, and goals of other partner agencies, there is an opportunity to develop a comprehensive and centralized data purchasing program. The following examples illustrate how other state DOTs and MPOs have benefitted from the development of similar types of programs.

- MATOC saved \$16.4 million in delay and secondary incidents through cross jurisdictional data sharing
- 2. NJDOT realized \$1 million in annualized time savings for project analyses
- 3. MWCOG realized \$450,000 in annualized time savings for reporting requirements
- 4. NCDOT built a statewide, data-driven capital project prioritization program

Should a comprehensive and centralized joint data purchasing program be developed, GDOT, ARC, and other partner organizations further evaluate a framework for financing its development and ongoing costs through various individual projects. A case study from the New Jersey DOT conservatively estimated that approximately 180 work-hours were saved on each project congestion/mobility report by using enhanced data and analytics software as compared to traditional methods. Assuming a consultant loaded rate of \$150 per hour, the savings equate to approximately \$27,000 per project. Data analyzed from a single consulting firm's direct expenses indicated that each project spends approximately \$4,500 per project on small data acquisition. In FY 2019, GDOT let 326 maintenance and construction projects; should Georgia experience similar savings as New Jersey, over \$10 million will be saved in engineering cost each year.

GDOT and ARC have made significant strides in the past 2 years to consolidate and share data. For example, speed data and the associated analytics platforms were purchased by GDOT's Office of Traffic Operations to replace traditional roadside ITS infrastructure, which lowered per mile maintenance costs by 86%. Recognizing the value of the data and analytics, Traffic Operations







Offering	GDOT Planning	GDOT OTD	GDOT Ops	GDOT Safety	GDOT DP	ARC	SRTA
Detailed Intersection Data							
Lane Attributes							
Road curvature, elevation, roughness							
Truck specific routing and restrictions							
Pedestrian specific routing and restrictions							
Detailed Road Attributes							
Signs, Signals and Warnings							
On-Street Parking							
Bicycle specific routing and restrictions							
Basic Road Attributes							
Roadway Speed Limit							
Dangerous Slow Down API							
Historic Parking							
Traffic Volume Estimates							
Places, Fuel stations, EV Charging Points							
DTM							
LiDar and Panormaix							
Environmental Zones							
Vehicle Regulations							
Historic Trip (OD) data							
Real time Parking							

Need

Want

Current (enhancement desired)