LCI Ideas Exchange
September 6, 2019

irginia Avenue
SMART CORRIDOR

Aerotropolis
ATLANTA
Community Improvement Districts

MODERN MOBILITY partners
WHAT IS THE STUDY?
Virginia Ave. from Main St./US 29 to South Central Ave.
WHAT TYPES OF SOLUTIONS DID WE REVIEW?

Signals
Bikes/Pedestrians
Transit
Street Lights
Pavement/Sidewalks
Wayfinding
Parking
EV Charging
Video Surveillance
Wi-Fi
Curbside
Apps
Data Exchange
### PRELIMINARY RECOMMENDATIONS

#### Recommended Project Prioritization

<table>
<thead>
<tr>
<th>Rank</th>
<th>Project</th>
<th>ID</th>
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<tbody>
<tr>
<td>1</td>
<td>Transit Signal Priority</td>
<td>1</td>
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<tr>
<td>2</td>
<td>Emergency Vehicle Signal Pre-emption</td>
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<td>3</td>
<td>Bike Signal Detection</td>
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<tr>
<td>4</td>
<td>CV-based Adaptive Signal Control Technologies</td>
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<td>5</td>
<td>In-Pavement Illuminated Crosswalks</td>
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<td>6</td>
<td>Solar Bus Shelters</td>
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<tr>
<td>7</td>
<td>RRFB and/or PHB with Automated Options for Activation</td>
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<tr>
<td>8</td>
<td>Transit-pedestrian Warning System</td>
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<td>8</td>
<td>Smart Streetlighting</td>
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<td>Digital Wayfinding Kiosks</td>
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<td>11</td>
<td>Public WiFi</td>
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<td>12</td>
<td>Cameras/License Plate Readers</td>
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<td>13</td>
<td>Autonomous Shuttle</td>
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<td>14</td>
<td>Automated Traffic Monitoring/Object Detection</td>
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<tr>
<td>15</td>
<td>Solar USB charging bench</td>
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<td>Parking Availability App</td>
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<td>Smart Parking Meters</td>
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<td>18</td>
<td>EV Charging Stations</td>
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<tr>
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<td>Automated Parking System</td>
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<td>20</td>
<td>Curbside Occupancy Sensors</td>
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<td>21</td>
<td>Smart Dots in Street Centerlines</td>
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</table>

#### Tier 1
- Transit Signal Priority
- Emergency Vehicle Signal Pre-emption
- Bike Signal Detection
- CV-based Adaptive Signal Control Technologies
- In-Pavement Illuminated Crosswalks
- Solar Bus Shelters
- RRFB and/or PHB with Automated Options for Activation
- Transit-pedestrian Warning System
- Smart Streetlighting
- Digital Wayfinding Kiosks

#### Tier 2
- Public WiFi
- Cameras/License Plate Readers
- Autonomous Shuttle
- Automated Traffic Monitoring/Object Detection
- Solar USB charging bench
- Parking Availability App
- Smart Parking Meters
- EV Charging Stations
- Automated Parking System
- Curbside Occupancy Sensors

#### Tier 3/Revisit Later
- Smart Dots in Street Centerlines

#### Stakeholder Input
- ROI and Economic Benefits
- Safety
- Cost
- Project Readiness
- Mobility Options
- Environment & Public Health
- Sustainable Technology

#### Virginia Avenue SMART CORRIDOR
EARLY WINS!
GDOT Upgrade of Signals to MaxTime & Installation of 4G LTE Routers - COMPLETE!

Building the Foundation for Future Signal Enhancements

- MaxTime local controller software / MaxView remote signal management software
- Cabinet Compatibility Upgrades
- Software with additional functions (ex. CV, TSP, etc.)
- Communications (4G Cellular Router)
- Current Traffic Signal Cabinets (Hardware)
EARLY WINS!

C-V2X Router Installations

Kerry Armstrong & ARC spearheads metro-wide deployment of C-V2X at 1,000 signals.

GDOT updating policy guidance to allow BOTH C-V2X and DSRC at same intersection.

**01**

METRO C-V2X

**02**

PILOT APP

Virginia Avenue Smart Corridor Team identifies need for DSRC v. C-V2X pilot and submits application to ARC.

**03**

AACIDs C-V2X

AACIDs submits 72 signals for C-V2X deployment, including all of Virginia Avenue, and collaborates with locals.

**04**

PARTNERSHIPS

Locals & AACIDs pay for signal pre-emption and priority installation & years 1-3 of maintenance; ARC pay for C-V2X routers & years 4-5 of maintenance.
EARLY WINS!

DSRC Router Installations

- GDOT willing to consider donating and installing DSRC routers at 2-3 intersections along the corridor
  - I-85 ramp intersection
  - Other potential locations TBD
Early Wins!
MARTA Transit Vehicle Testing

- If we provide the technology, MARTA willing to provide:
  - Non-revenue service test vehicle (MARTA Mobility van) along Virginia Avenue
  - Revenue-service 3+ month pilot (Bus 172 is 1 of 140 buses serving 37 routes out of Hamilton Garage)
PILOT PROJECT OPPORTUNITY
USDOT ADS Grant Application

*Redevelopment Zones identified in Aerotropolis Atlanta CID's Master Plan (indicated in blue)*