Pennsylvania
Planning for the Future

I-95 Corridor Coalition Connected and Automated Vehicle Conference

June 21, 2016 – Linthicum, MD

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Initial Steps of Planning for Connected & Automated Vehicles

National Working Groups

Pittsburgh Test Beds

CV/AV 2040 Vision
National Groups

- V2I Deployment Coalition
- AASHTO – STMSO TWG5
- AAMVA – AV Best Practices
- Pooled Fund Studies
- TRB & NCHRP
CV/AV 2040 Vision
Pittsburgh

Present - 2040

Implications of CV/AV
- Design & Investment Decisions
- Real-Time Data Usage
- Impacts on Existing Infrastructure
- Workforce Training Needs
- Impacts on Freight Flow

Completed: July 2014
Next Steps
Planning for Connected & Automated Vehicles

Autonomous Legislation
Smart Cities
Statewide Planning
Legislation
Preparing for the Future

Senate Bill 1268
Amending Title 75 (Vehicles) of the Pennsylvania Consolidated Statutes, providing for autonomous and connected vehicles.
Introduced: May 18, 2016
Senate Bill 1268

Testing Only

Manned and Remote Testing

Platooning

Flexible

AV Policy Task Force
AV Policy Task Force

- **Government** -
  - PennDOT
  - PTC
  - DCED
  - PSP
  - Insurance
  - FHWA
  - City of Pittsburgh

- **Advocacy** -
  - AAA
  - ATA
  - PMTA

- **Academia** -
  - CMU
  - U Penn

- **Industry** -
  - Uber
  - SAE
Smart City Challenge
Pittsburgh

- Mobility Optimization
- Connected Adaptive Signals
- Pedestrian Detection (V2X)
- Transit Prioritization (V2I)
- Connected Fleet
- Transit, City, and Bicycles
- Access On-Demand Pilot
- Autonomous Shuttle
Limited Scenario for Analysis

Oakland: Carnegie Mellon

Junction Hollow segment requiring new limited access transit cartway

Pittsburgh Technology Center: Stop locations are flexible

Lower Greenfield: Boundary at Saline

Shuttle Route & Stop Location

<table>
<thead>
<tr>
<th>Shuttle Route Travel Time</th>
<th>Average Time (Minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Junction Hollow Loop</td>
<td>8</td>
</tr>
<tr>
<td>PTC Loop</td>
<td>7</td>
</tr>
<tr>
<td>ALMONO Loop</td>
<td>12</td>
</tr>
<tr>
<td>Total Shuttle Route Travel Time: ALMONO-Junction Hollow-PTC</td>
<td>27</td>
</tr>
</tbody>
</table>

ALMONO: Vicinity of Phase 1A

Hazelwood: Second Avenue at Hazelwood

Conceptual Transit Route

existing Bus Service
Refine Operational Vision
Identify Short-Term Projects
Develop Implementation Schedule
Completion By Summer 2016
Joint Statewide Strategic Plan

CV/AV Working Group
- PennDOT
- Turnpike
- Academia
- MPOs
- FHWA
- Municipalities

Statewide Planning

Expand Upon Existing Work
- Recommendations
- Living Document
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