



T.H.E. Conference Illinois Tollway Update

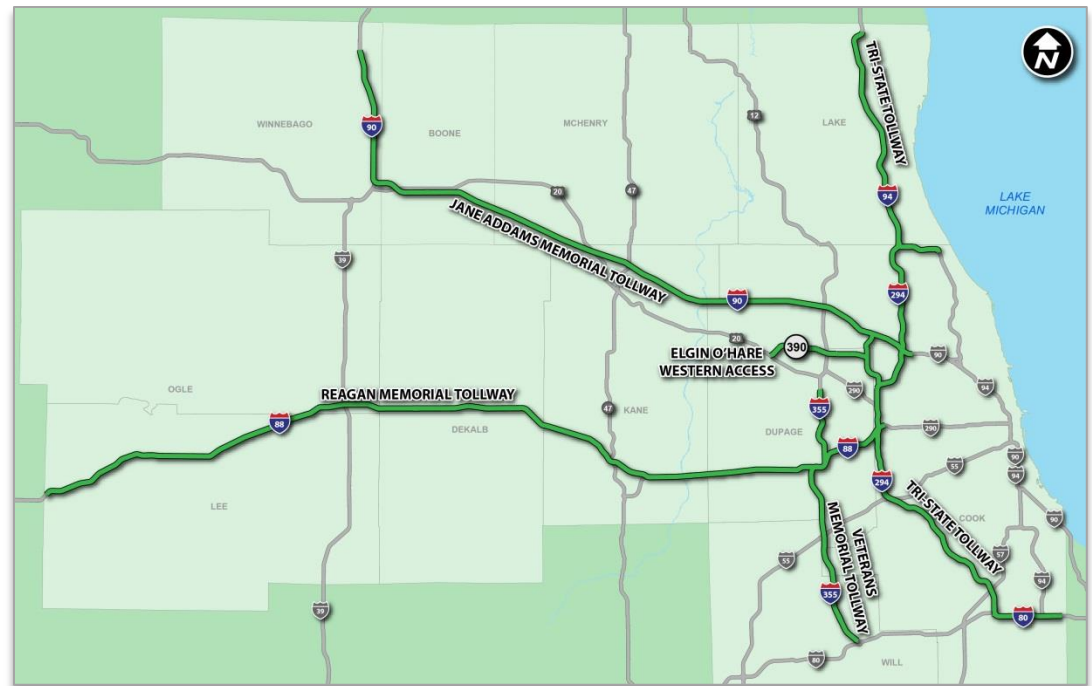
February 25, 2015

Today's Agenda

- ▶ **Illinois Tollway overview**
- ▶ **2015 capital program highlights**
- ▶ **Building a 21st century corridor**
- ▶ **Connected vehicles**
- ▶ **Federal pilot project opportunity**
- ▶ **Young engineers – transportation workforce of the future**

Illinois Tollway – Key Statistics

- ▶ **286-mile system** comprised of four tollways
- ▶ **Opened in 1958** as a bypass around Chicago to connect Indiana and Wisconsin
- ▶ Carries more than **1.4 million vehicles per day**
- ▶ **More than 87 percent** of tolls paid electronically
- ▶ **User-fee system** – no state or federal gas tax dollars used for maintenance and operations

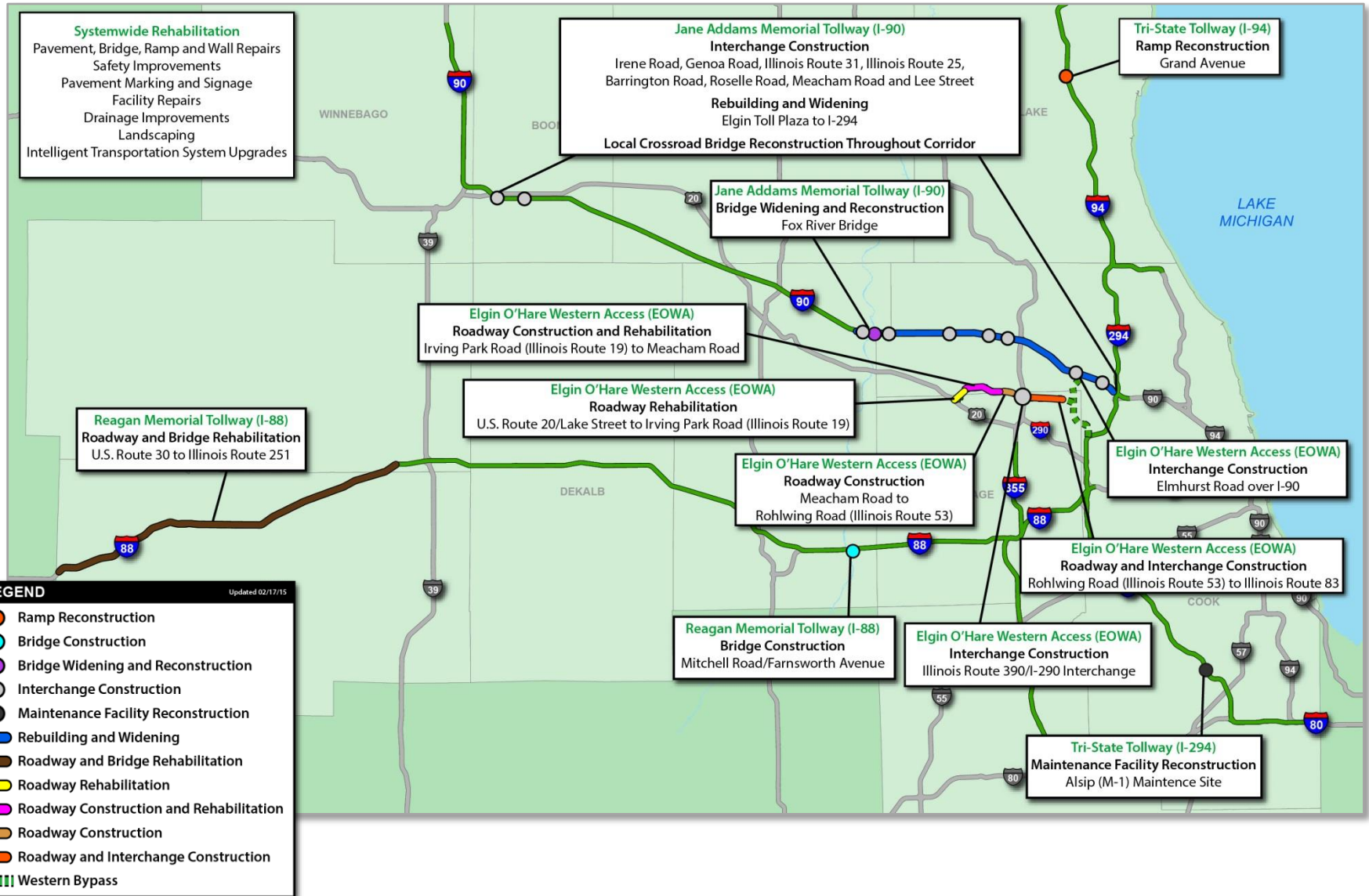


2015 Capital Program Overview

Largest year in the Tollway's history

- ▶ **Anticipate \$1.63 billion in capital spending**
 - ▶ \$839.6 million to continue Jane Addams Memorial Tollway (I-90) Rebuilding and Widening Project
 - ▶ \$319.8 million to continue Elgin O'Hare Western Access Project
 - ▶ \$107.9 million to resurface the Reagan Memorial Tollway (I-88) from U.S. Route 30 to Illinois Route 251
 - ▶ \$241.1 million for systemwide roadway, interchange and bridge repairs
- ▶ **Manage as many as 200 construction and professional services contracts**

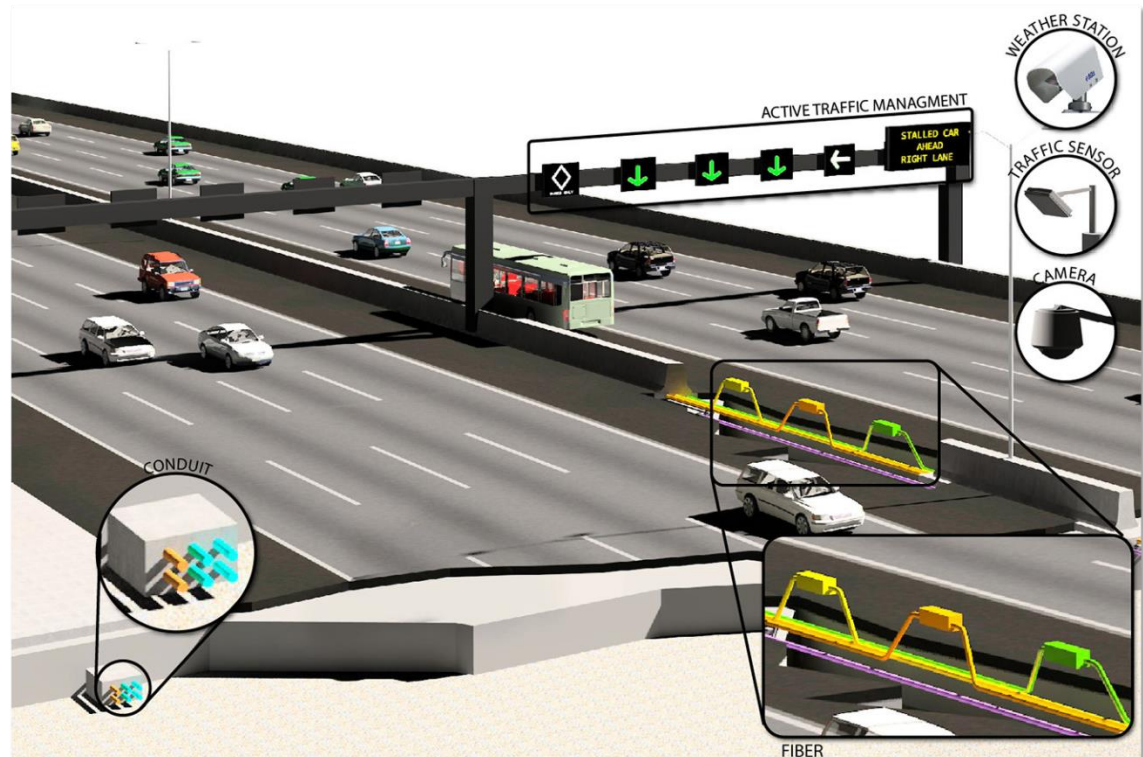
2015 Construction Overview



Building a 21st Century Corridor

- ▶ Jane Addams Memorial Tollway (I-90) Rebuilding and Widening Project
- ▶ Flexible infrastructure to incorporate smart features, such as

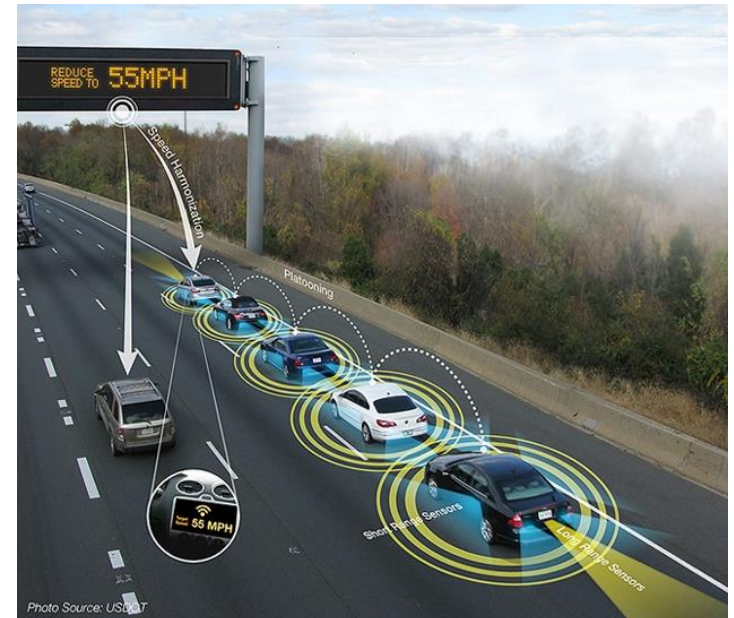
- ▶ Active traffic management (ATM)
- ▶ Connected vehicles (CV)



Promise of Connected Vehicle Technology

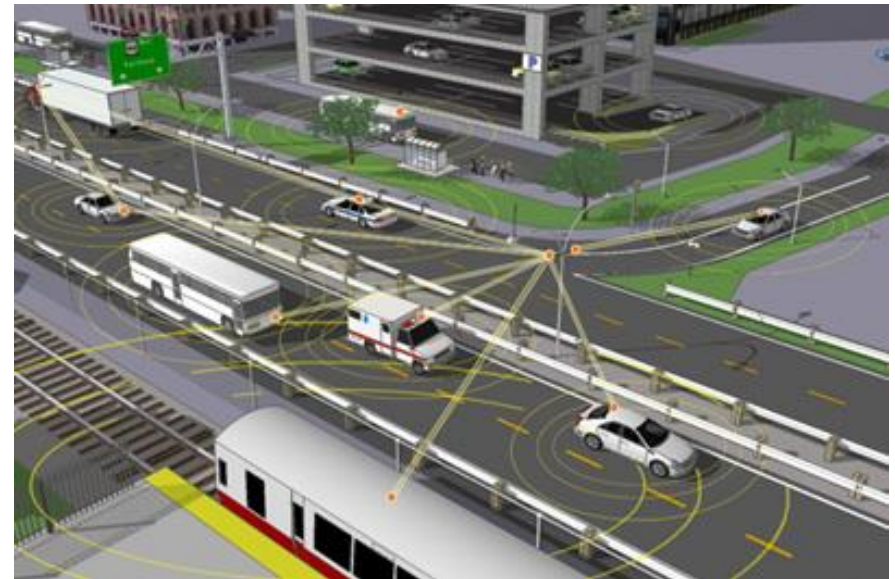
“In the past, the U.S. Department of Transportation (USDOT) has focused on helping people survive crashes. Connected vehicle technology will change that paradigm by giving people the tools to *avoid* crashes.”

U.S. Department of Transportation



What is a Connected Vehicle?

- ▶ Features an independent onboard wireless capability to establish a two-way data linkage
- ▶ Transfers information by vehicle-to-vehicle and vehicle-to-infrastructure communication
- ▶ Communicates information that can save lives, prevent injuries, ease traffic congestion and improve environment



Potential Applications of CV

- ▶ **Curve speed warning**
- ▶ **Spot weather impact warning**
- ▶ **Reduced speed/work zone warning**
- ▶ **incident scene**
- ▶ **Incident scene work zone alerts for drivers and workers**
- ▶ **Queue warning**
- ▶ **Enable advanced traveler information system (ATIS)**

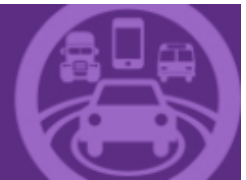


Federal Pilot Project Opportunity

Federal Highway Administration issued a Request for Proposals for Connected Vehicle (CV) Pilot Deployment

- ▶ Encouraging testing and development of connected vehicle technology
- ▶ Focus is on CV technology that will allow vehicles to collect, distribute and receive information in real time
- ▶ Multiple awards available
- ▶ Awards will range from \$2 million to \$20 million
- ▶ Encouraging multiple stakeholder partnerships lead by private sector

Connected Vehicles
CV Pilots Deployment Project





Tollway is a Strong Candidate

- ▶ **Proven commitment to “smarter” operations**
 - ▶ Significant investments on the Jane Addams Memorial Tollway (I-90) and Illinois Route 390
 - ▶ Tollway one of only five roadway agencies that is also a federally affiliated test beds for CV technology
- ▶ **Proven success delivering major capital programs**
 - ▶ 15-year, \$12 billion *Move Illinois* Program
- ▶ **Proven partnerships with universities, transportation agencies and the private sector**

Anticipated Pilot Program Schedule

- ▶ **Planning phase**
 - ▶ 2015-2016
- ▶ **Development and testing phase**
 - ▶ 2017-2018
- ▶ **Operational period**
 - ▶ 2018-2019
- ▶ **Transition to permanent operation**
 - ▶ After 2019

Young Engineers – Future Challenges

- ▶ Young engineers in the transportation industry can look forward to a challenging future
 - ▶ Developing solutions and advocating for funding to fix the nation’s crumbling infrastructure
 - ▶ Adapting to rapid technology advancements while working with risk-averse public agencies
 - ▶ Designing new flexible infrastructure that provides multiple options for travelers
 - ▶ Continuing to protect the environment



Young Engineers – Exciting Opportunities

- ▶ **Young engineers in the transportation industry can also look forward to an exciting future**
 - ▶ Strong employment outlook for construction and engineering
 - ▶ Near-universal agreement that more infrastructure investment is needed through additional federal funding or alternatives like tolling
 - ▶ The public sector is looking for more opportunities to partner with the private sector to encourage innovation and share costs



Advice for Young Engineers

- ▶ Take fundamentals and PE exam as soon as you are eligible
- ▶ Find a mentor
- ▶ Ask questions
- ▶ Avoid over-dependence on technology
- ▶ Being an engineer means you have to take on responsibility
- ▶ Be proud of the profession
- ▶ “Figure out how to do it” rather than simply accept “we can’t”
- ▶ Be a team player
- ▶ Be an advocate for diversity





THANK YOU
