

# State Transportation Plan Update

MPO/RPA Quarterly Meeting  
June 30, 2016



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## Status Update

- Five Internal Steering Committee meetings
- Four Action Plan Focus Group meetings
- Commission presentations in January, May
- Ongoing development of base document chapters
- Ongoing technical analysis for action plan
- Planning for upcoming public input

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## Vision and Action Plan

- Structure

- A broad **vision statement** that encapsulates the overall vision for Iowa's future transportation system
- Overarching **investment areas** within which actions will be defined to implement the system vision
- Specific **strategies** that will be utilized by the department that fit within one or more of the investment areas
- Where appropriate, specific **improvements** the department feels are necessary to help achieve the overall system vision



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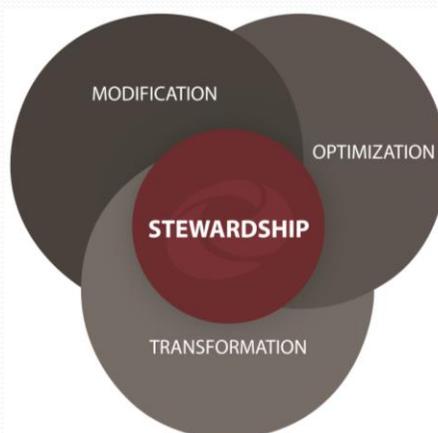
## Vision

### Colorado's visualization



<http://coloradotransportationmatters.com/statewide-transportation-plan/>

### Current concept



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## Defining strategies and improvements

- Reviewed existing planning documents to identify relevant strategies
- Additional strategies will be identified through planning discussions
- Started discussions with aviation, public transit, and rail regarding modal strategies/improvements
- Ongoing analysis related to highway improvement identification
  - Capacity
  - Mobility and safety
  - Freight
  - Condition
  - Operations

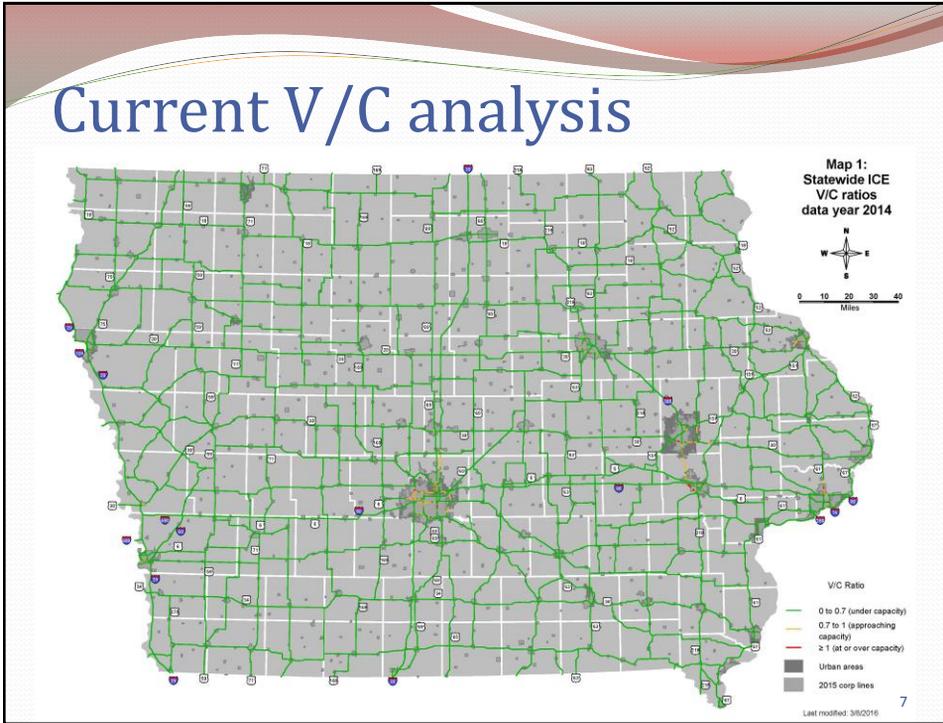
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## Capacity needs analysis

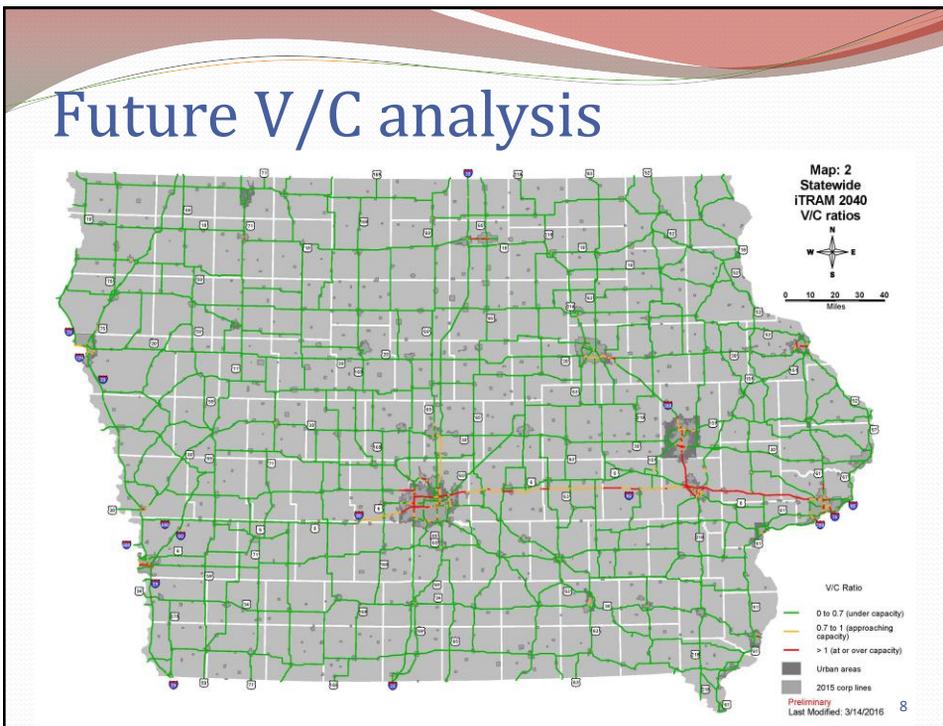
- First level of analysis conducted for action plan
  - Analyzed current volume-to-capacity (V/C) conditions with Infrastructure Condition Evaluation (ICE) tool
  - Estimated future V/C conditions with Iowa Travel Analysis Model (iTRAM)
- ICE results – current segments approaching/over capacity are largely in urban areas and interurban corridors (I-35 between Des Moines and Ames; I-380 between Cedar Rapids and Iowa City)
- iTRAM results – future segments approaching/over capacity show higher V/C ratios in same areas as ICE, along with congestion along I-80 from central Iowa to the Quad Cities

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# Current V/C analysis



# Future V/C analysis



## Key takeaway

- Stakeholder input, public input, and initial analysis all point in the same direction of a **dominant theme of stewardship**, particularly as it relates to highway investment

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## Mobility and safety analysis

- Next step in iterative highway improvement identification process, following capacity analysis
- Needs/benefits
  - Enhanced safety
  - Improved operations on two-lane primary highway system
  - Cost effectiveness
  - Complementary network to the multilane highway network

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## Background

- Super-2 concept discussed for the CIN in 1997 Iowa in Motion
- Super-2 improvements implemented in some locations and corridors, but not widely adopted
- In the past, Super-2 generally included aggressive geometric improvements and stricter design policies that would enable higher speed limits
- Mobility and safety improvements being discussed are a more relaxed version of the Super-2, focused on implementing the appropriate mix of elements based on each corridor's characteristics
- This type of improvement has been discussed with the Commission as an alternative to address operational needs on roadways that do not need capacity expansion

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## Background

- Types of improvements could include:
  - Paved shoulders
  - Limited access
  - Geometric improvements
  - Left and right turn lanes
  - Acceleration lanes
  - Climbing/passing lanes
- Improvements would be less prescriptive, more opportunistic
- Two corridors where Super-2 like improvements were implemented saw significant safety benefits
  - US 169 from Fort Dodge to Humboldt – 26% reduction in crashes (67% if animal crashes excluded)
  - US 63 from Oskaloosa to New Sharon – 49% reduction in crashes<sup>12</sup>

## Analysis overview

- Reviewed five elements of the primary system
  - Identification of existing climbing/passing lanes
  - Crash statistics from 2010-2014
  - Roadway slope
  - 2014 Average Annual Daily Traffic (AADT) and percent truck traffic
  - Average trip length on corridors
- Analysis provided good information for background and comparisons between routes, but did not result in an obvious network of improvements

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## Corridor identification

- Filtered analysis with considerations related to connectivity, geographic access, and existing networks
  - Existing/future multilane highway network
  - Commercial and Industrial Network and Access Iowa
  - Iowa Multimodal Freight Network
  - Commission priorities
  - Corridor association requests
- Have started discussing potential network and decision points with Action Plan Focus Group
- Network would represent corridors that do not require capacity expansion, but could be targeted for mobility and safety improvements

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## Next Steps

- Continue analysis for identifying highway improvements
  - Decision points on mobility and safety
  - Remaining layers of highway analysis (freight, condition, operations)
  - Reviewing MPO models for a more detailed look at capacity needs in urban areas.
  - Continued work on modal strategies and improvements
- Second round of public input to be held in August-September