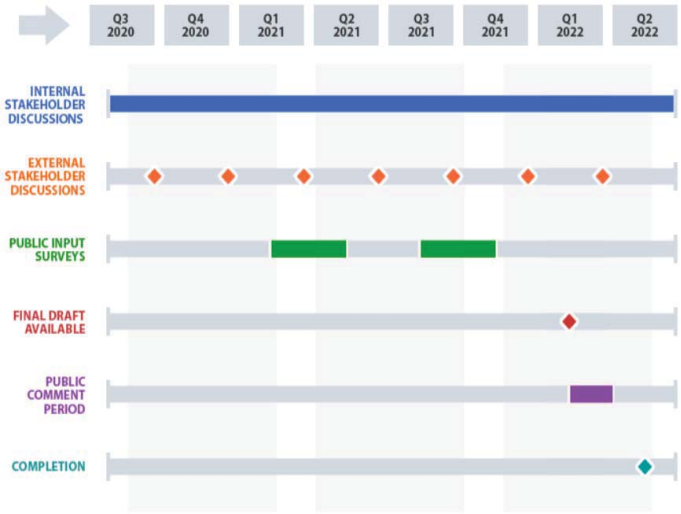
State Transportation Plan & State Freight Plan 2022 Updates

MPO/RPA Quarterly
March 24, 2021

Timeline

- Critical next step: public input survey
- Working towards:
  - Early 2022 draft
  - May 2022 completion



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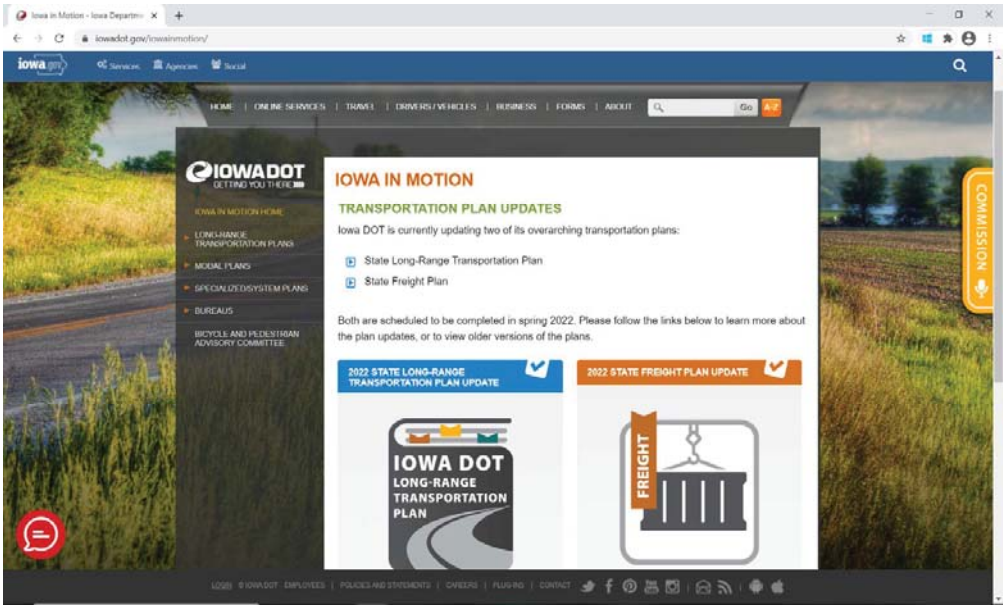

State Transportation Plan

System Objectives and Needs Analyses

MPO/RPA Quarterly

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Plan enhancement: Clear system objectives

- Decision-support simplified:
  1. Identify needs (in current SLRTP)
  2. Prioritize among those needs (not in current SLRTP)
- Needs identification in current SLRTP
  - ☑ Multi-modal analysis
  - ☑ Multi-factor analysis
  - ☑ Specific (e.g., corridor-level needs)
  - But priority lacks definition
    - Stewardship #1, otherwise need vs. no need

Benefits of clear system objectives

- Provides adaptable framework for measurement and prioritization across modes
  - Business units can align to these objectives
  - Measures/evaluation criteria for programs, applications, and tools can roll up to objectives
- Helps unify and align:
  - Long-range planning
  - Performance management
  - Asset management
  - Project prioritization

Defining system objectives

- How to support prioritization
  - First, what are we trying to achieve on our system?
  - i.e., **system objectives**
- Prior related work with mobility outcomes:
  - **Safety, Flow, Sustainability, Accessibility**
  - Outcomes synonymous with objectives, in this context
- Draft definitions and areas of measurement being refined by internal committee; will be shared with Commission in April

Critical analyses timeline

- Operations analysis (ICE-OPS) – complete
- Infrastructure condition analysis (ICE) – April
- Capacity analysis (iTRAM) – May
- Bottlenecks analysis (INRIX) – June
- Safety analysis – late summer
- Resiliency analysis – late summer
- Modal systems analysis – ongoing
- *Accessibility/equity analysis – TBD*

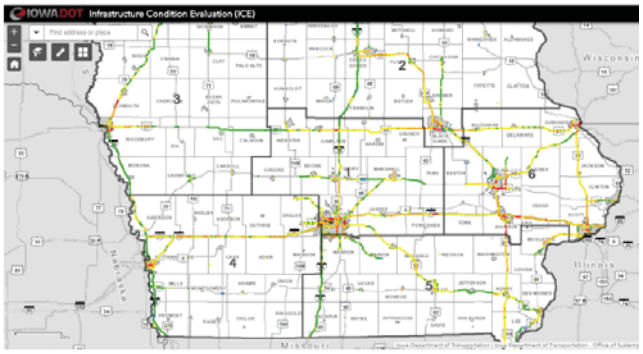
Operations analysis – ICE-OPS

- System screening that quantifies the relative risk to the safe and reliable operation of the primary highway system
- ETA: Complete

Example output

Infrastructure condition analysis (ICE)

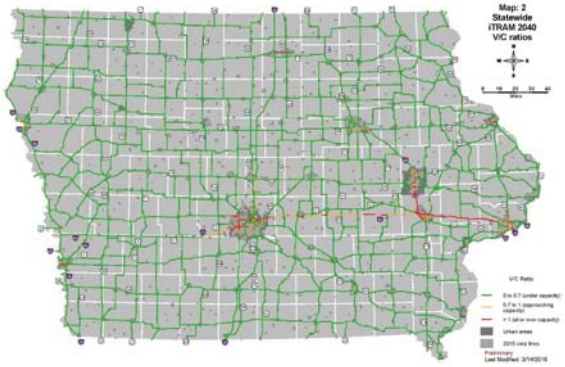
- Provides a composite rating based on the most recent infrastructure condition and performance data for the primary highway network
- ETA: April



Example output from webmap

Capacity analysis (iTRAM)

- Statewide travel demand model that can be used to forecast future traffic volumes
- ETA: May



Example output from iTRAM that was used in 2017 SLRTP

Bottlenecks analysis (INRIX)

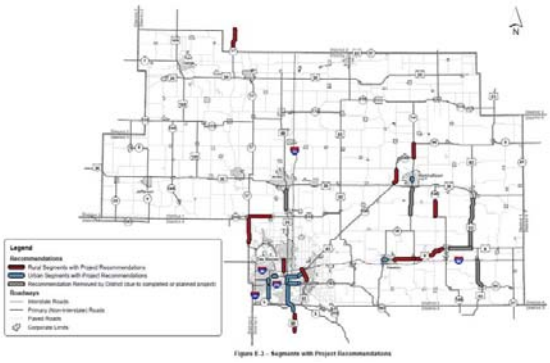
- Locations that experience traffic bottlenecks; reviewed based on duration, value, condition, and performance
- ETA: June

Bottlenecks analysis initial results

Safety analysis

- *Addition from 2017 SLRTP*
- Update of district road safety plan recommendations

  and/or
- Statewide corridor-level safety performance function analysis
- ETA: Late summer



Example district road safety plan recommendations

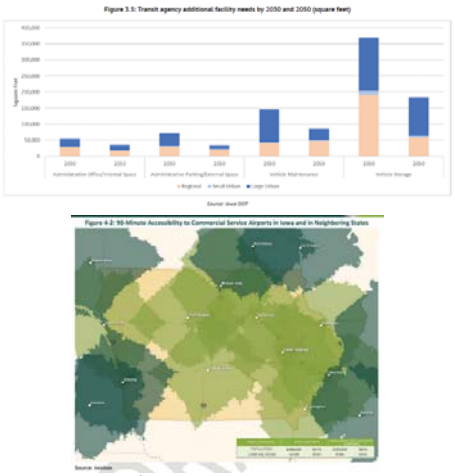
Resiliency analysis

- *Addition from 2017 SLRTP*
- System analysis that considers robustness/ vulnerability, redundancy, and criticality
- ETA: Late summer

Example criticality map for system operations

Modal systems analysis

- Needs identification for each mode, based on current modal plans and/or updated analysis
- ETA: Ongoing



Examples from Public Transit Long Range Plan (top) and draft Aviation System Plan (bottom)

Accessibility/equity analysis

- *Addition from 2017 SLRTP*
- Exploring ways to conduct analysis
- *ETA: TBD*

Example transit dependency analysis from Public Transit Long-Range Plan

QUESTIONS?

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GETTING YOU THERE

State Freight Plan
Freight Networks

Multimodal networks

- Purpose
- Components and methodology
  - National Multimodal Freight Network
  - Iowa Multimodal Freight Network
- Next steps

Purpose of designation

1. Inform freight transportation planning.
2. Recognize corridors to protect and enhance for improved freight movement.
3. Develop department policies for these corridors related to design and use.
4. Assist with strategically directing resources and investments to improve performance.

National Multimodal Freight Network

AIR	Top 50 cargo airports
HIGHWAY	National Highway Freight Network *(Primary Highway Freight System, Interstates, Critical Rural and Urban Freight Corridors)*
RAIL	Class I railroads Other strategic Class II and III railroads
WATERWAY	Major coastal ports Inland and intercoastal waterways Great Lakes, St. Lawrence Seaway Coastal and ocean routes

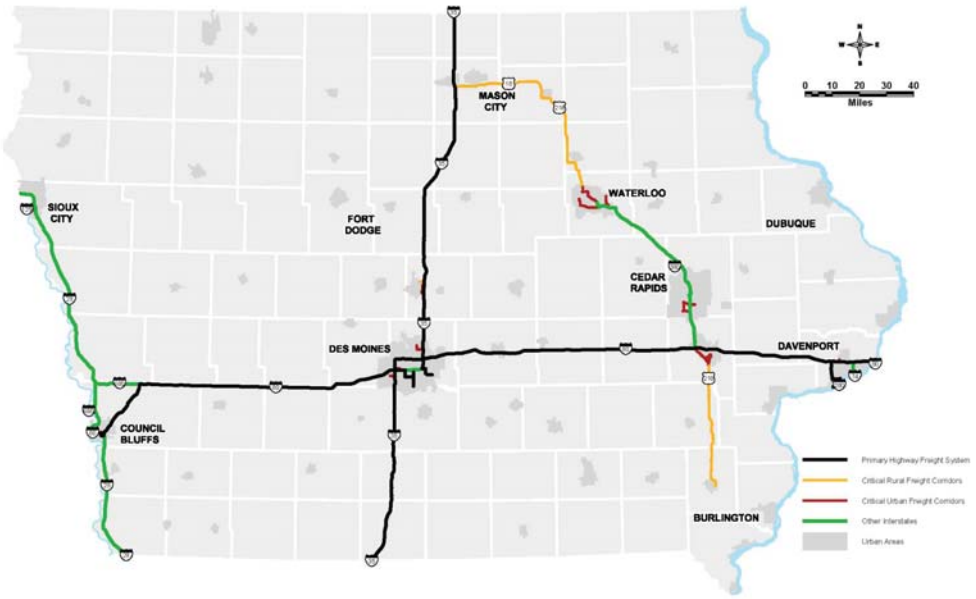
National Highway Freight Network

(highway component of NMFN)

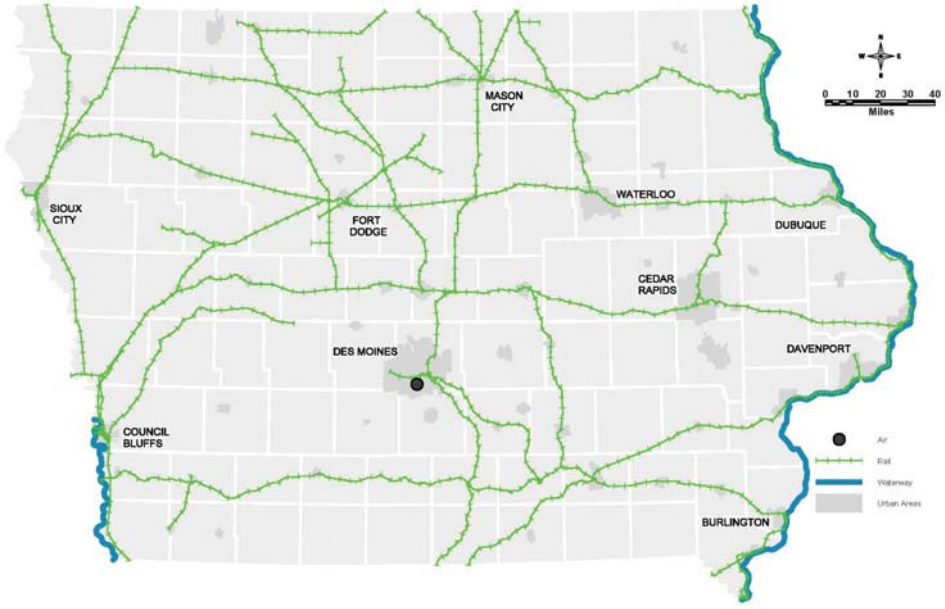
- Primary Highway Freight System*
- Interstates
- Critical Rural Freight Corridors*
- Critical Urban Freight Corridors*

**currently being updated*

National Multimodal Freight Network - highway



National Multimodal Freight Network - nonhighway

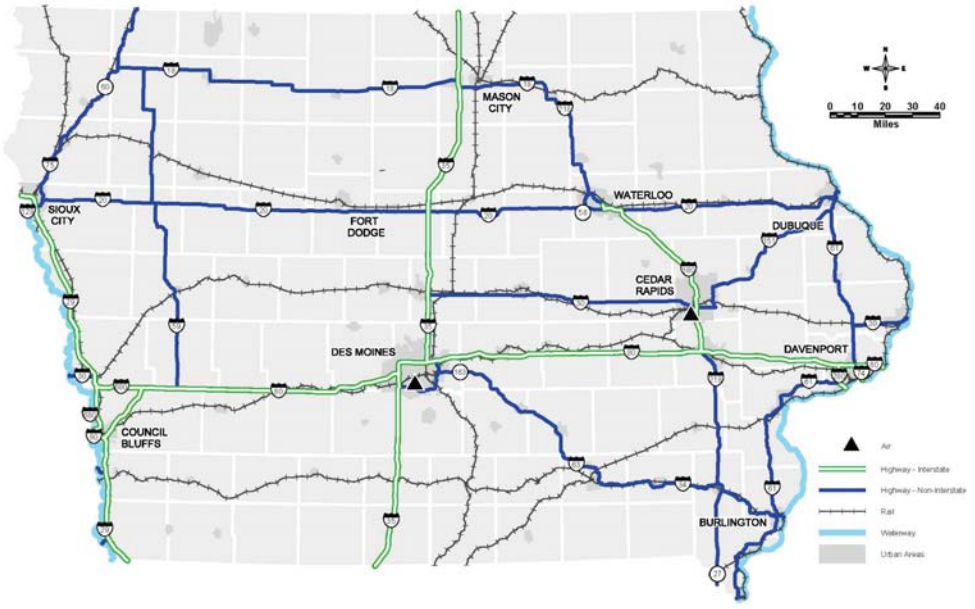


Iowa Multimodal Freight Network

AIR	Top cargo airports
HIGHWAY	Truck traffic *(30% truck traffic* or 1,000 AADT*)* Oversize/overweight permitted loads *(1,000 permits annually*)*
RAIL	Tonnage per line *(5 million tons per mile*)*
WATERWAY	Marine highways

**based on a multiyear average*

Iowa Multimodal Freight Network



Next steps

- Feedback from Freight Advisory Council
- Finalize networks
- Utilize for design considerations, implementation strategies, improvements, prioritization, etc.

THANK YOU FOR YOUR TIME AND ATTENTION

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