Agenda

- What is ITS?
- What does the Plan do for Des Moines?
- What does the Plan include?
- Future Commitments
Intelligent Transportation Systems Master Plan Update

What is an intelligent transportation system (ITS)?

- It is the application of sensing, analysis, control and communications technologies to ground transportation in order to improve safety, mobility and efficiency.
Intelligent Transportation Systems Master Plan

- Provides the required framework upon which future traffic management and communication systems can be built
- Addresses major components: signal system hardware and software, communications infrastructure (fiber), and observation cameras
- Funding Plan: Includes phasing and prioritized deployment recommendations
Transportation Goal 8
Plan for future changes in transportation demand, technology, and innovation
Des Moines ITS Master Plan

- Addresses Immediate Infrastructure Needs
- Actively observe and manage traffic
- More Efficient with limited resources
- Further ability to utilize roadway capacity in different ways
- Set us up for a future of Smart Cities
Des Moines Intelligent Transportation Systems Master Plan

Issues / Constraints

- Legacy system technology/Old Equipment
- Traffic signal controllers (425) are 1970’s technology (No longer made)
- CMS Software old (not supported past July 2019)
- Missing fiber connection to ¼ of our traffic signals
- 20 Video observation cameras (often inoperable)
- No emergency vehicle pre-emption
- No way to manage our traffic (special events, major detours, emergencies, etc)
Identifies the traffic signal controller and signal software needs that will set us up to adapt to what comes in the future

Provides an expanded network of traffic observation cameras in key locations

Lays out a plan for where the fiber communication network needs to be expanded
Des Moines Intelligent Transportation Systems Master Plan

- As we utilize capacity on our existing roadways in new ways to meet Goals of PlanDSM, important to keep traffic moving and manage rush hour issues.
- These tools can make higher level roadways function better to keep traffic out of neighborhoods.
Des Moines Intelligent Transportation Systems Master Plan

- Updated signal software and hardware provides allows for:
  - Reliable Travel Times for drivers
  - Reduced Staff Costs
  - Reduced citizen complaints about traffic signals
  - On-demand (and current) traffic counts for studies, economic development uses, etc.
Des Moines Intelligent Transportation Systems Master Plan

- Provides Overall traffic management strategy
- Updated Video Observation system will enable real-time monitoring for Events, Emergency Response, Flooding, construction detours
  - System can be used by PD, Fire, Public Works
- Traveler Information (Dynamic Message signs / Apps) provide real-time messages to drivers
  - Coordinated with IDOT to handle large incident events
Des Moines Intelligent Transportation Systems Master Plan

- Flexibility for Smart City Technologies
- Expanded Fiber Communication system to handle data needs
- Be ready for the onset of connected and autonomous vehicles
Des Moines Intelligent Transportation Systems Master Plan - Funding

- Plan takes holistic, logical approach to implementation
- $12.5 M, Spread over eight phases
- Grant funding - $500K for STBG 2022
- Programmed in CIP
- Recommend additional staff (FY 21 - Signal Systems Engineer)
- On-going maintenance / operations costs