

# Des Moines Area Integrated Corridor Management Project

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# What is Integrated Corridor Management?



# What is ICM?



## WHAT IS IT?

INTEGRATED CORRIDOR MANAGEMENT



# Integrated Corridor Management



Framework for **multiple modes of transportation**

Based on a **proactive, integrated management and operation** of a regional transportation system

Delivered in a **cost-effective manner** compared to traditional infrastructure capacity expansion projects

# Project Goals





# Collaboration is key



# Why ICM?



**IOWADOT**  
GETTING YOU THERE >>>>  
INTEGRATED CORRIDOR MANAGEMENT -  
DES MOINES METRO AREA

# Des Moines Area Congestion

“From 1990 to 2017, the city of Des Moines grew 12%, to 217,106 people, according to the Iowa State Data Center...But the growth of other cities in the metro area was far greater.

Waukee grew nearly eightfold to 20,680 people in 2017. Ankeny more than tripled to 65,284. West Des Moines more than doubled to 65,562.”

- *Des Moines Register, October 24, 2019*



**WHY DES MOINES NEEDS**  
INTEGRATED CORRIDOR MANAGEMENT





# Identified Issues

## Northwest

Weaving issues

Poor/outdated signal timing

Traffic impacts on arterials adjacent to interstate

## Northeast

No access/limited access across median

Short merge segments

Bottlenecks

Queueing onto interstate

Heavy traffic

Lack of turn lanes

## Southwest

Weather

Bottlenecks (drop lanes)

Arterial signal coordination

High speeds into congestion

High demand/limited capacity on Mix Master

Transit service/park-and-ride access

## Southeast

Infrastructure connectivity

Pedestrian mobility improvements

Upgrade Highway 5

# Why ICM for Des Moines Metropolitan Area?

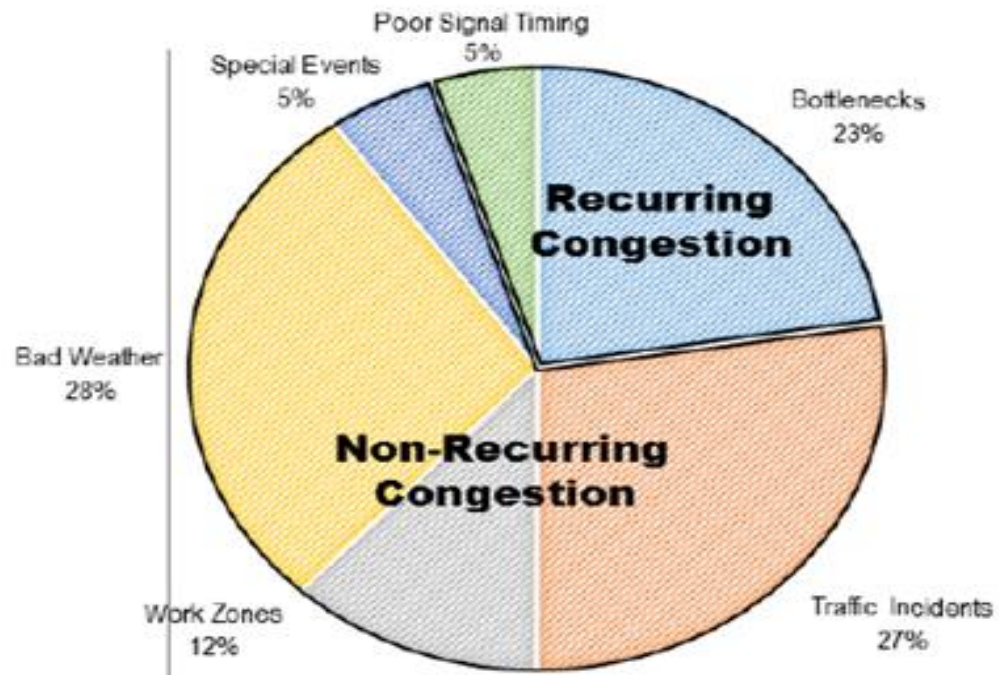


FIGURE 1. IOWA SOURCES OF CONGESTION, 2013-2015

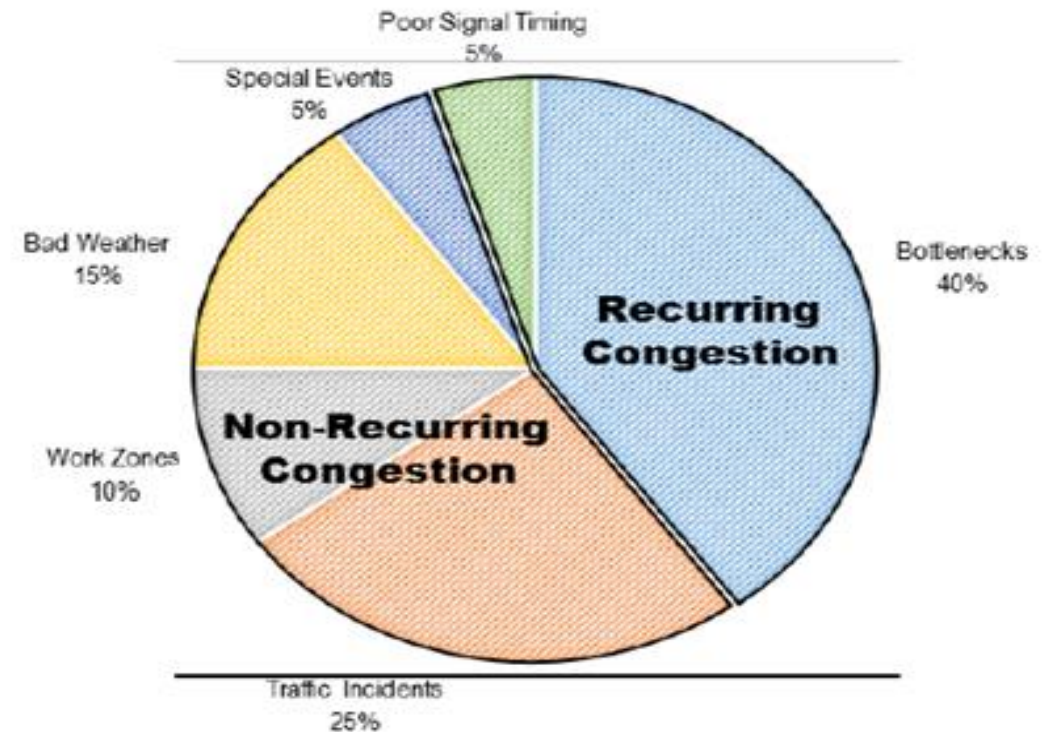


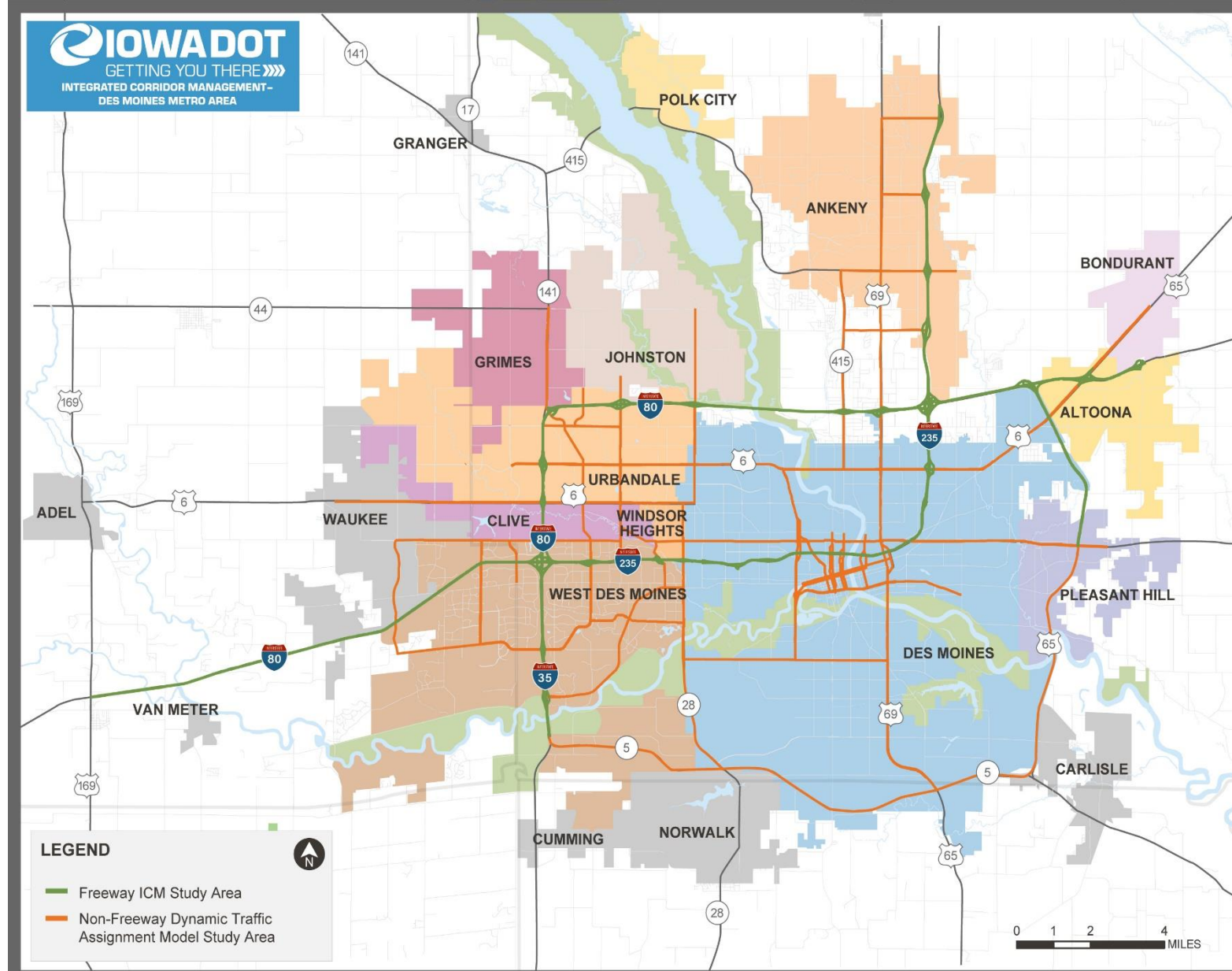
FIGURE 2. NATIONAL SOURCES OF TRAFFIC CONGESTION, 2005 (Cambridge Systematics, 2005)



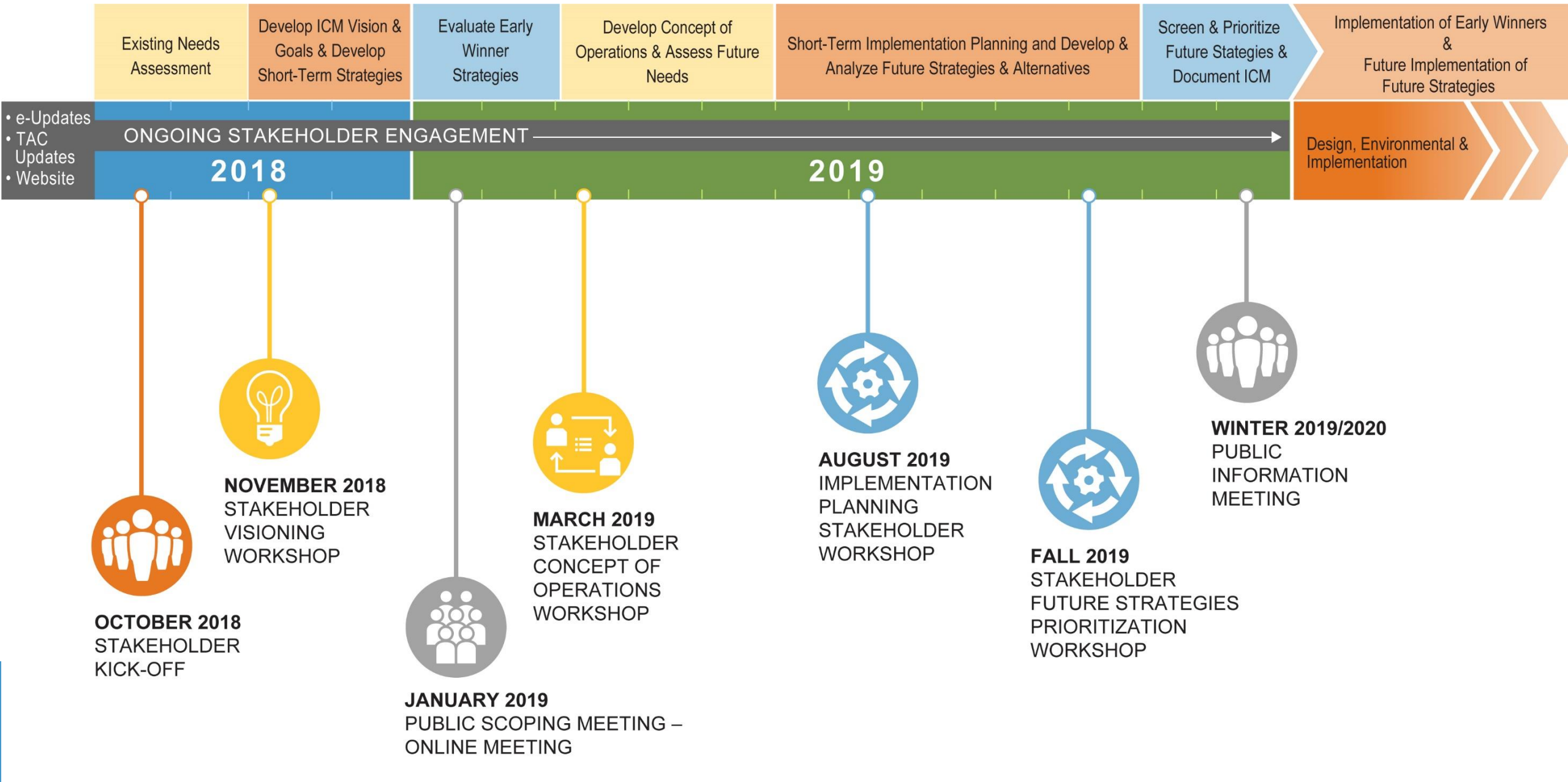
# Deploying ICM for Des Moines

# Project Boundaries

- Primary Freeway
  - I-80
  - I-35
  - I-235
  - Portions of US 65
- Secondary
  - Selected parallel and connecting arterials to the roadways above.







# Des Moines ICM Vision

*The Des Moines metropolitan area will benefit from a safe, efficient, reliable and sustainable transportation system that supports economic growth and promotes an equitable and healthy community. ICM strategies will assist the state and area communities to proactively manage multi-modal transportation systems in a safe and efficient manner using proven technologies and operational strategies while maximizing the use of existing infrastructure and services. ICM will offer travelers more opportunities to make seamless and convenient trips to meet social and economic needs.*



# ICM Program Elements



# ICM Strategies



## STRATEGIES FOR INTEGRATED CORRIDOR MANAGEMENT





# Representative ICM Benefits

Improved Safety  
and Emergency  
Response

Improved  
Accessibility and  
Mobility

Reduced or Shifted  
Demand

Enhanced Traveler  
Choice and Decision  
Making

Increased Return on  
and Use of Existing  
Investment

Improved  
Transportation  
Efficiency and  
Productivity

Improved Customer  
Experience and  
Perception

Reduced  
Environmental  
Impact

Institutional  
Cooperation

# Key Outcomes

## PHASE I

Implementation of short-term strategies

- Existing Conditions Report
- Vision, Goals, Objectives and Performance Measures
- Short-Term Strategy Definitions
- Program Level Concept of Operations
- Project Level Concept of Operations
- Implementation Plan

## PHASE II

Future implementation of mid-term and long-term strategies

- Future Conditions Report
- Mid-to-Long Term Strategies Definitions
- Program Level Concept of Operations Update
- Project Level Concept of Operations Update
- Implementation Plan Update

# Initial ICM Deployments



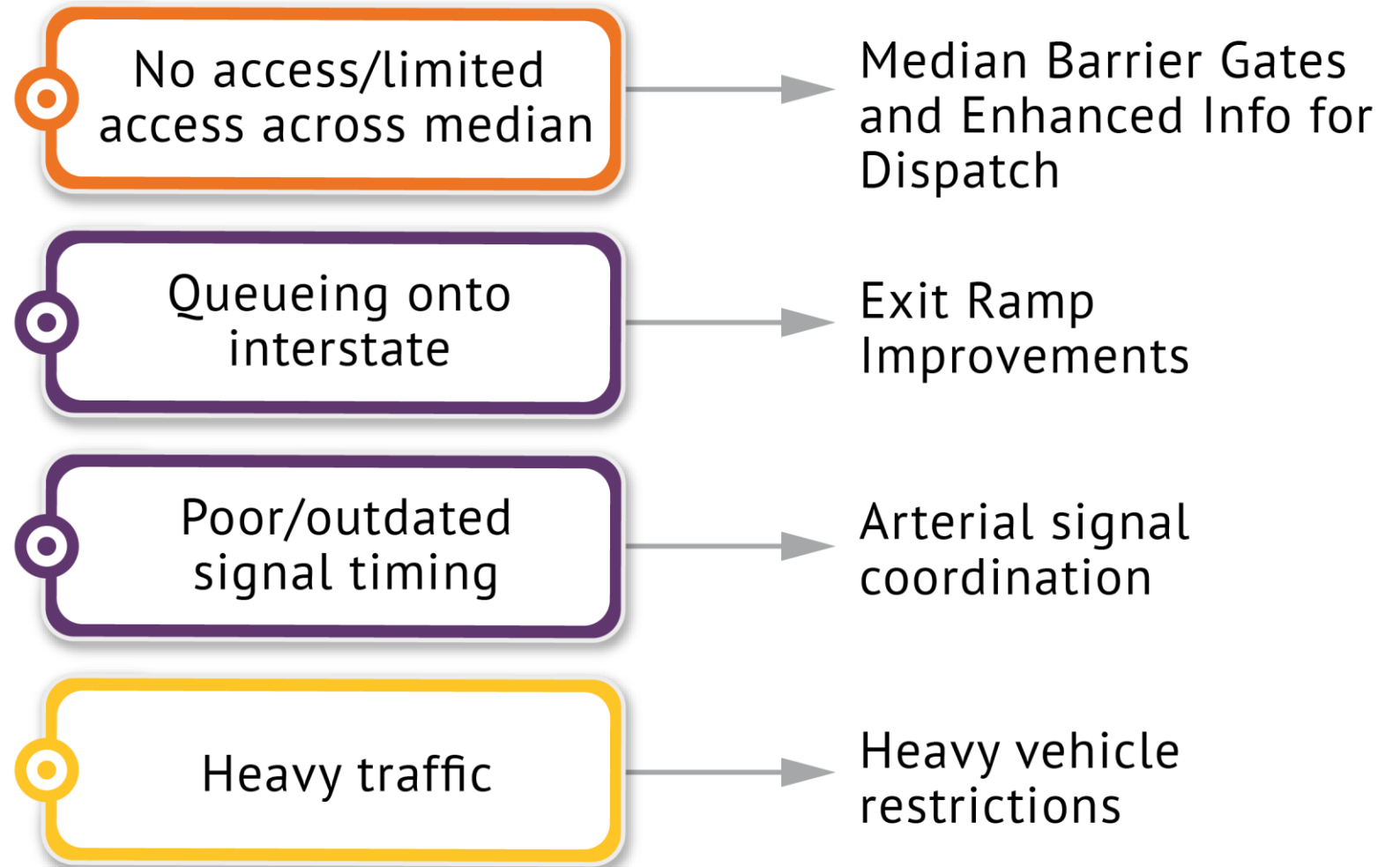
## INITIAL DEPLOYMENTS FOR INTEGRATED CORRIDOR MANAGEMENT










# Near Term Strategies

- Address identified issues
- Quickly, cost effectively implementable



# Mid-to-Long Term Strategies

- Development / Analysis of Five ICM Strategy Bundles

Bundle	Infrastructure	Technology	Anticipated Cost	System Benefit
 Aggressive Freeway Build	↑	↓	↑	?
 Transit and Travel Demand Management	↑	↔	↑	?
 Intensive Transportation Management	↔	↑	↔	?
 Balanced	↑	↔	↑	?
 Targeted Transportation Management	↓	↑	↓	?

# Summary



# Summary

- ICM proactively manages the existing transportation system
  - More cost-effective than traditional improvements
- Phase 1 ICM strategies address existing needs & can be piloted in the first 2 to 3 years.
- Phase 2 ICM strategy bundles evaluation will support projects that strategically balance system optimization and added capacity.

# More Information

- Visit:  
<https://iowadot.gov/desmoinesicm>
- Sign up for notifications
- Watch and share the ICM video with your colleagues/employees
- Stay tuned! Early 2020 – Watch for announcements





# Questions?

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