

Welcome

- **Please sign-in**
- **Review exhibits**
- **Ask questions**
- **Provide comments**

MEETING PURPOSE

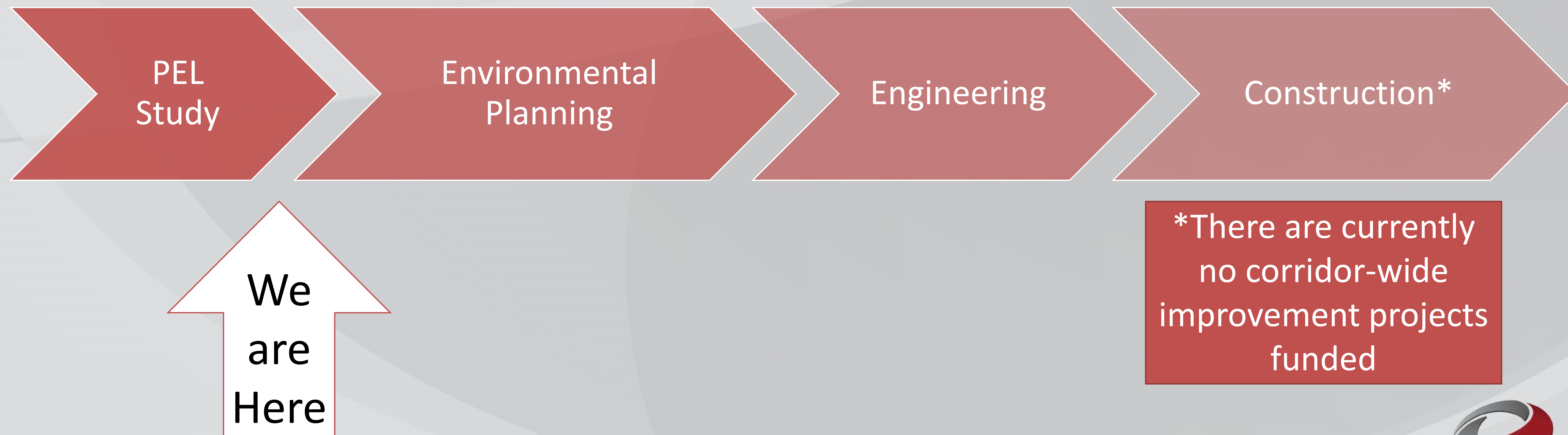
To present and gather feedback on...

- Findings of the US 30 Planning and Environmental Linkages or PEL Study
 - Recommended number of travel lanes
 - No bypasses recommended
 - Potential improvements and prioritization
- Planned next steps for project planning and delivery



PEL Study and the Project Development Process

A Planning and Environmental Linkages - or PEL Study is an early planning level study model, developed and approved by the Federal Highway Administration, that is intended to identify transportation issues and environmental concerns before any construction funding is identified.



PEL Study Steps

May 2018 –
January 2019

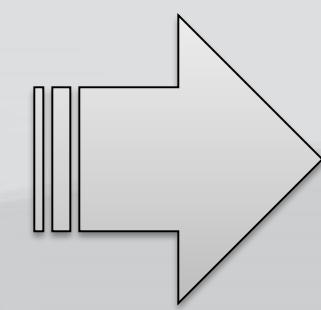
February 2019 –
June 2019

Summer
2019

Public Involvement

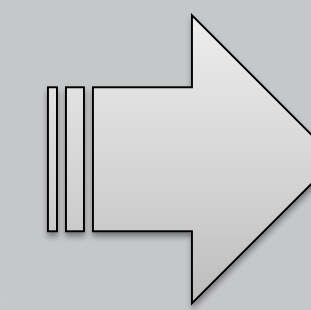
STEP 1

- Agency Coordination
- Data Collection
- Analyze Existing Conditions and Constraints
- Crash Analysis
- Historical Survey



STEP 2

- Vision and Goals
- Geometric Analysis
- Environmental Analyses
- Traffic Study
- Improvement Development and Refinement



STEP 3

- Identify & prioritize recommended Improvements
- Present findings in ***Vision Document***

We are
Here

As funding allows, the next step after the PEL study will be the initiation of the environmental process, which includes more public involvement opportunities



US 30 Corridor – Next Steps

PEL
Study

Environmental
Planning

- Environmental Planning
Studies and Preliminary
Engineering

Engineering

- Final
Engineering
Design

Construction

- Improvement
Projects
Programmed for
Construction

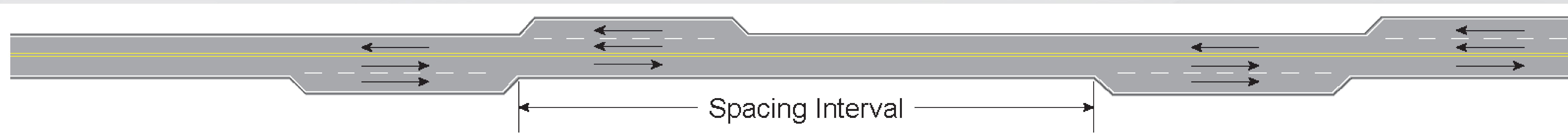
Next
Step

Super-2 and Other Recommended Improvements:

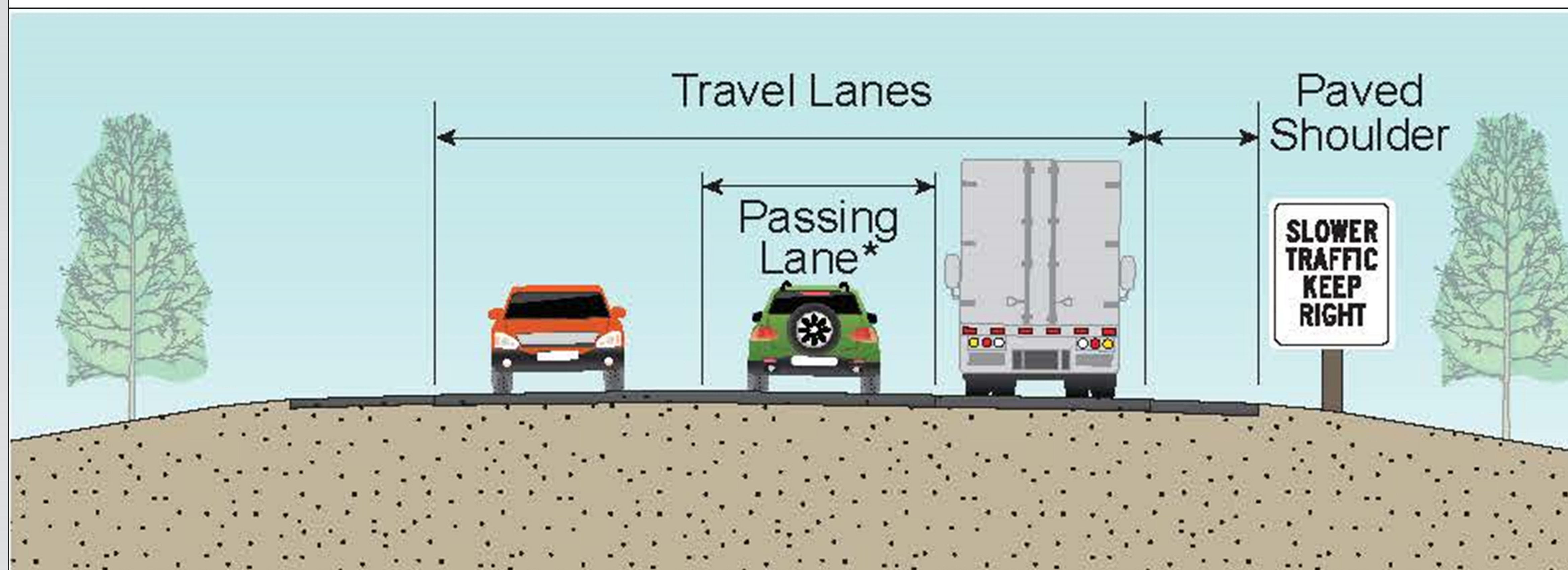
- Depend on available funding
- Likely opportunistic projects in combination with planned repair, rehabilitation, and reconstruction projects
- Two bridge replacement projects between Wheatland and Calamus are in the Iowa DOT 5-year improvement plan



Recommended Roadway Section Super-2 Highway (Between Communities)



Super 2-Lane Rural



*Passing lanes can be in either direction, are non-continuous, and spaced at established intervals along a corridor.

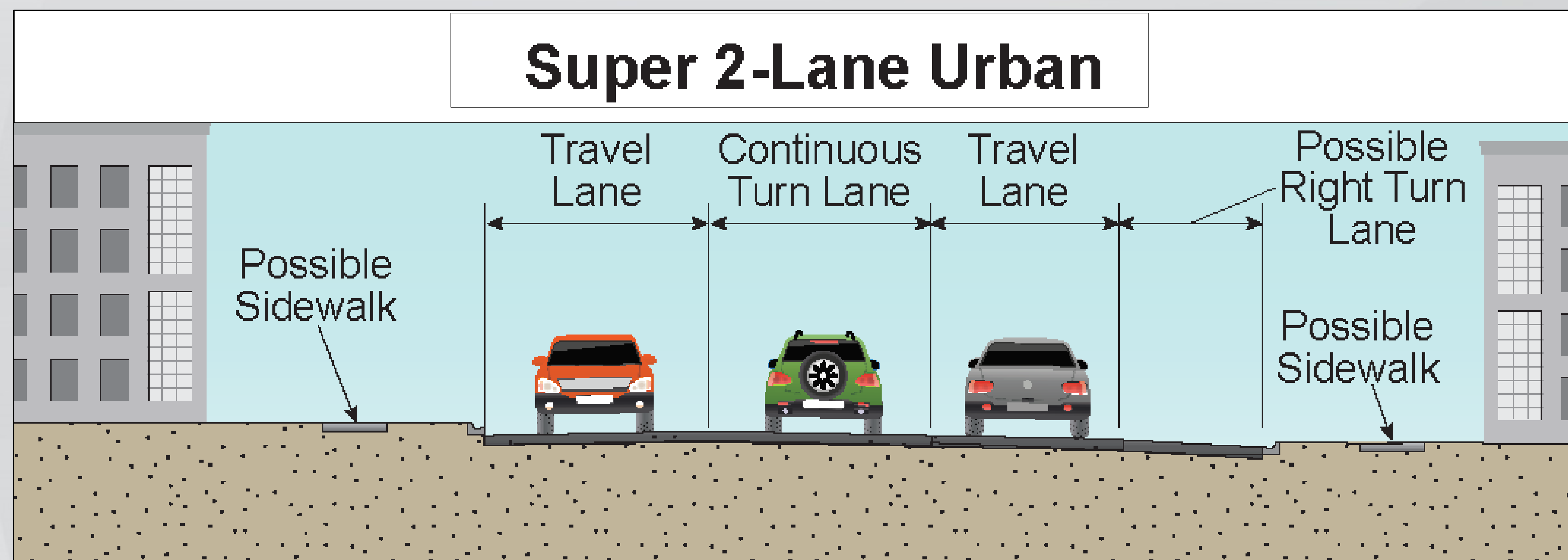
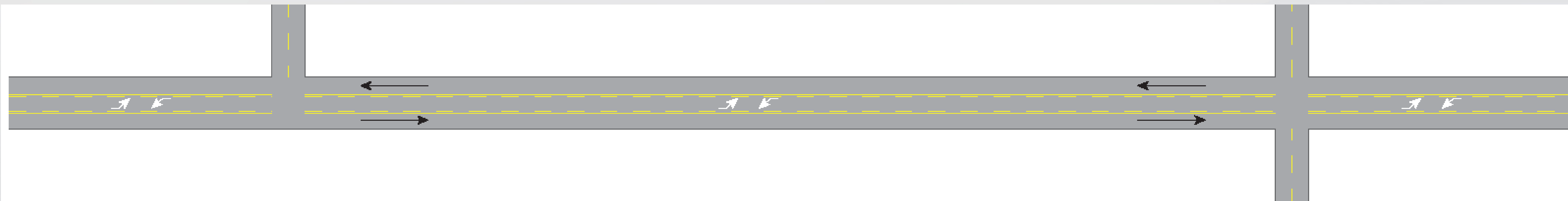
- Improves opportunity to safely pass slower moving vehicles
- Passing lanes where appropriate and needed, generally every 4 to 5 miles
- Typical passing lane length: 0.5-1.75 miles

U.S. 169 Fort Dodge, IA to Humboldt, IA



Recommended Roadway Section

Super-2 Highway (Through Communities)



- Turn lanes separate turning traffic from US 30 traffic flow
- Reduces travel delays through communities
- Center left turn lane and right turn lanes provided at locations with minimal impact and cost



Example of Center Two-Way Left-Turn Lanes (TWLTL) in Oelwein, Iowa.



Why Improvements are Recommended

- US 30 is a critical roadway to Iowa's rural economy
 - Iowa DOT targeted corridor for mobility and safety improvements (Iowa In Motion 2045 State Transportation Plan)
- Presence of slow-moving farm and agricultural equipment common throughout the year
- Vehicle backups can occur
 - Multiple communities along the corridor
 - Sections with minimal signed/marked passing opportunities
- Public input supports enhancement of the corridor
- Improvement focus
 - Decrease conflicts with slow-moving vehicles and turning vehicles
 - Increase safe passing opportunities to promote safer, reliable and consistent travel



Slow moving trucks and agricultural equipment can be found throughout the US 30 corridor.



Current and Future Conditions

US 30 Travel is Reliable and Consistent

CURRENT SPEED AND TRAVEL TIME <i>West of Mechanicsville to East of Grand Mound</i>				
Weekday Time Period	Eastbound Travel		Westbound Travel	
	Speed (mph)	Time (minutes)	Speed (mph)	Time (minutes)
Full Day: 12 AM – 11 PM	54.2	47.5	54.4	47.5
Daytime: 7 AM – 9 PM	54.4	47.4	54.4	47.5
Overnight: 10 PM – 6 AM	54.1	47.7	54.3	47.6
Morning Commute: 7 AM – 9 AM	54.6	47.3	54.6	47.3
Afternoon Commute: 4 PM – 6 PM	54.7	47.2	54.7	47.3
<i>Note – The values above include driving through communities with reduced speed limits. <u>Accounting for the reduced posted speed limit sections, data suggests that current travel speeds are at or above the posted speed limits for the corridor.</u></i>				

Future (2045) Estimated Travel Speed and Time <i>Compared to Existing Conditions</i>		
Alternative	Speed Change (mph)	Travel Time (minutes)
No-Build	-0.2	+0.3
Super-2	+1.7	-0.3

Possible Travel Time Savings With Bypasses <i>(All Communities)*</i>	
Assumed Posted Speed Limit (mph)	Est. Travel Time Change (minutes)
55	1
60	5
65	8
<i>*Based on time required to travel a given distance (estimated 42-mile bypass length) at a constant given speed; times are not necessarily representative of a certain number of travel lanes.</i>	



Why Super-2 Highway Recommended

- A Super-2 highway compared to a 4-lane highway
 - Is a lower cost solution
 - Is a better return on taxpayer investment
 - Has less farmland, private property, and natural resource impacts
 - Affects travel patterns, access to existing businesses, and potential railroad conflicts less

US 30 Super-2 Highway vs. 4-Lane Highway

Construction Cost Difference

When compared to the cost of simply reconstructing an existing 2-lane highway, the additional cost to upgrade to a Super-2 is about 15% to 20% of the cost to upgrade to a 4-lane highway.

Right-of-Way and Farmland Impacts

Super-2 impacts are about 1/3 of the those expected with a 4-lane highway and bypasses

- Super-2 highway style improvements can provide significant safety benefits where safety problems exist
 - US 169 Fort Dodge to Humboldt – 67% crash decrease
 - US 63 Oskaloosa to New Sharon – 49% crash decrease



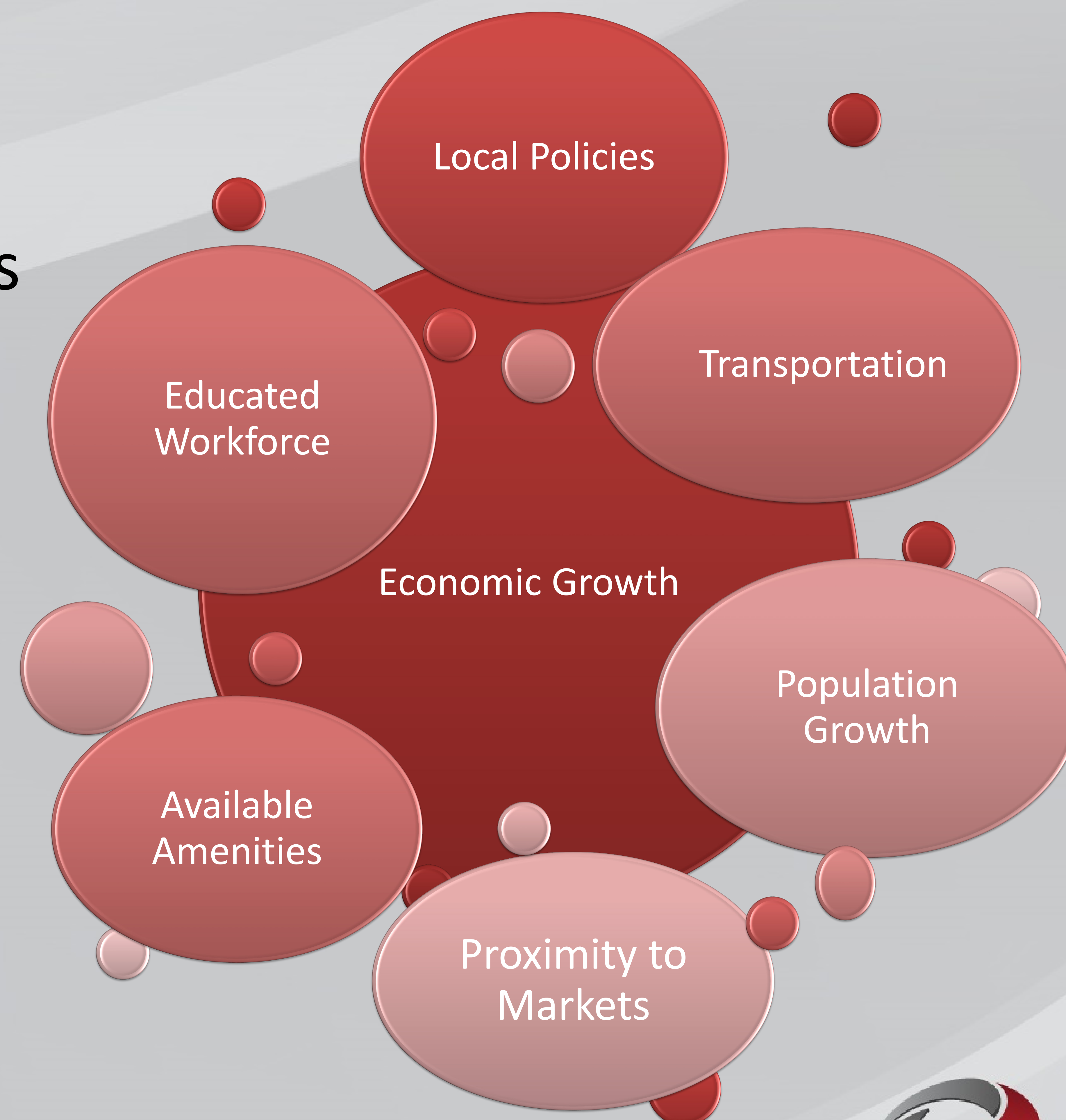
Why Super-2 Highway Recommended – A Super-2 Will Reliably Meet Expected Future Traffic Needs

- A 2-lane highway can effectively manage between 8,000 to 14,300 vehicles/day and provide smooth traffic flow
- Existing traffic for US 30 ranges from 2,220 to 5,580 vehicles/day
- It is projected that 3,000 to 12,500 vehicles/day will use US 30 by 2045:
a 2-lane highway will still efficiently manage future traffic on US 30
- For comparison, 2018 traffic counts
 - Main St., Lisbon (local street) – 420 vehicles/day
 - Mill Creek Parkway, Clinton (principle arterial) – 8,000 vehicles/day
 - 1st Avenue (IA 1), Downtown Mount Vernon – 6,900 vehicles/day
 - I-80 (Cedar County) – 36,500 vehicles/day
- Transition to a Super-2 highway can improve safety, reliability, and enhance capacity to meet future transportation needs of a corridor



Economic Considerations

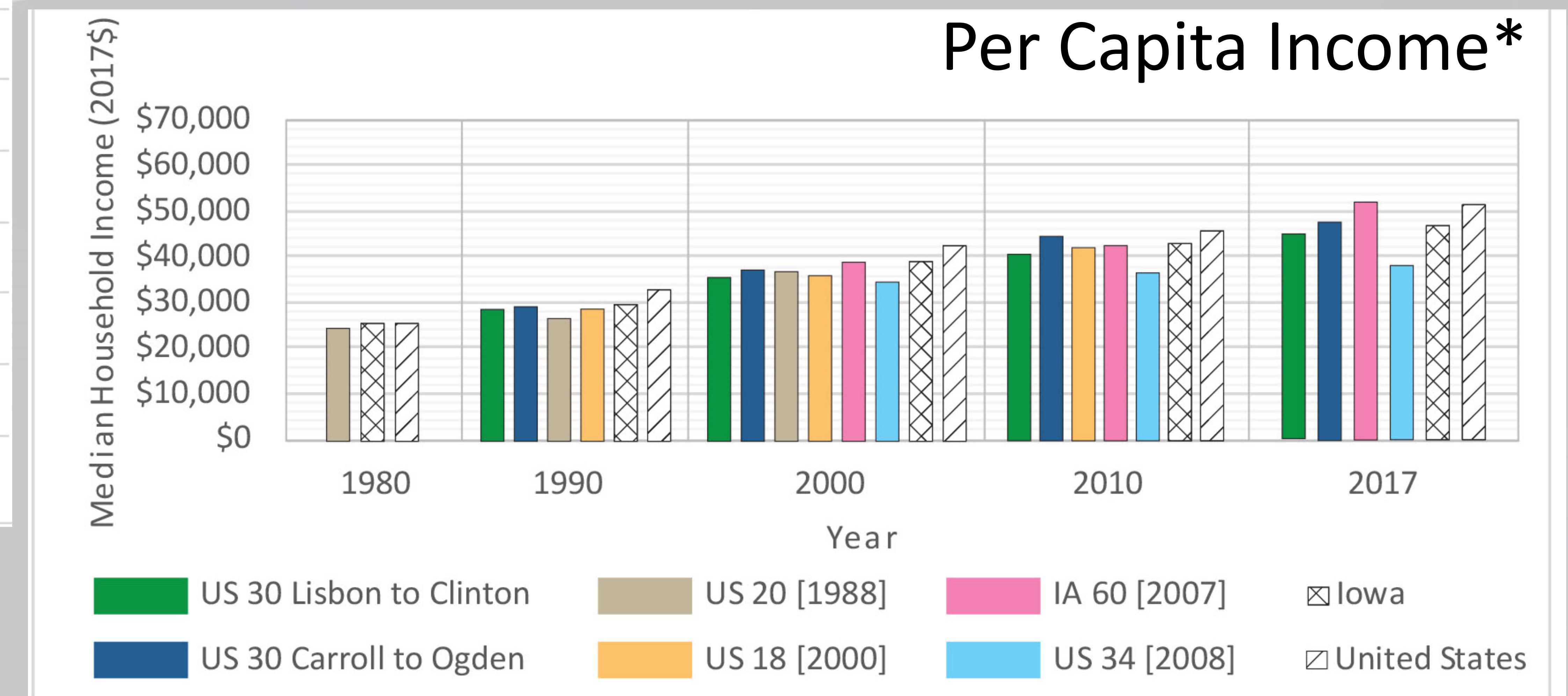
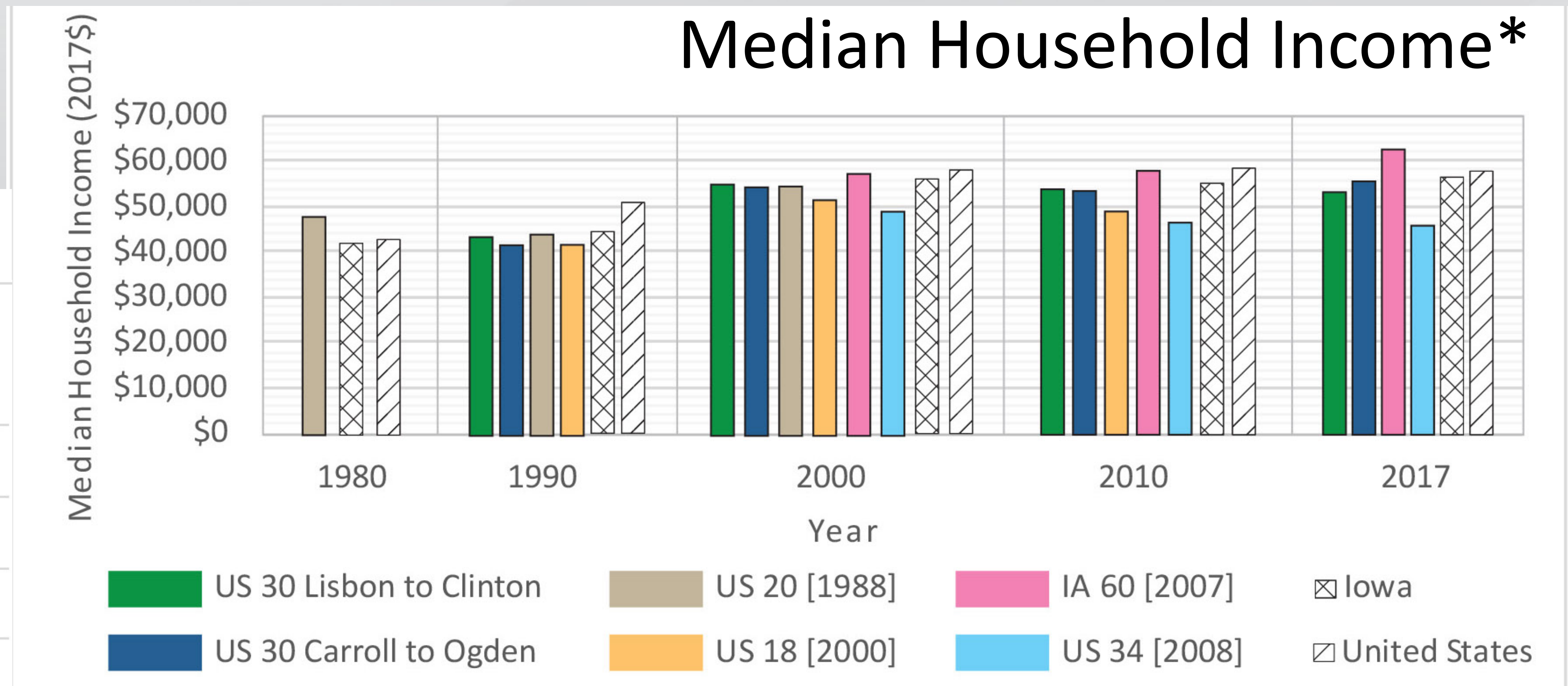
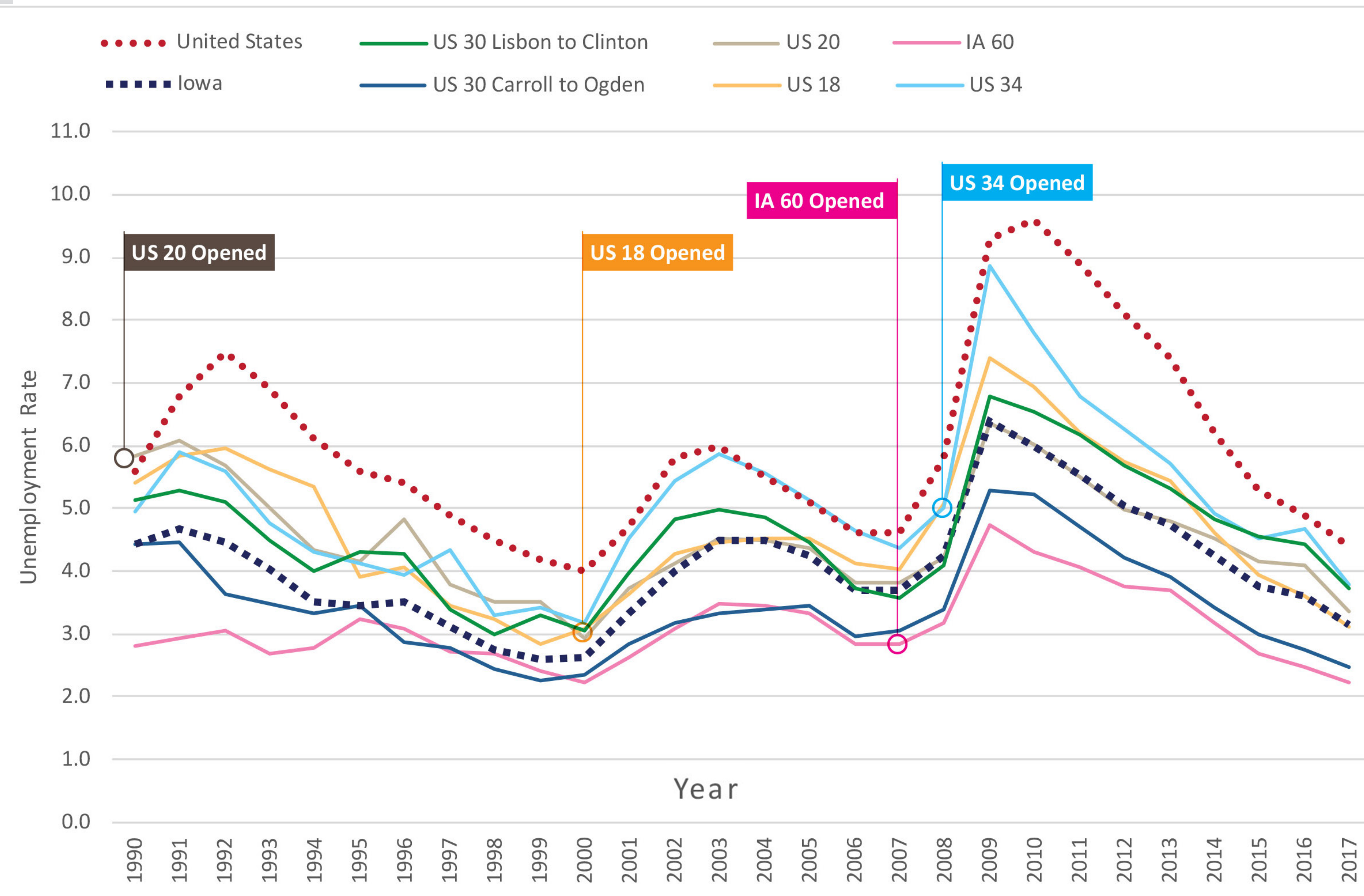
- Local economic trends tend to mimic trends at the state and national level
- No clear correlation between change in economic trends and four-lane highway expansion observed in Iowa case studies or prior studies outside of Iowa
- Analysis suggests that adequate highways support economic growth but four-lane expansion will not create economic growth on its own
- Economic growth depends on additional drivers
 - Population growth
 - Presence of an educated workforce
 - Proximity to markets
 - Local economic development policies
 - Amenities
- Super-2 highway investments can improve the safety, reliability, and consistency of travel and continue to support opportunities for future economic growth



Economic Considerations – Data Trends

Economic performance along 2-lane highway corridors is similar to, or, in some instances, better than 4-lane highways

Unemployment



4-Lane Highways Represented in the Tables

US 20 – Waterloo to Dubuque

US 18 – I-35 to Charles City

IA 60 – LeMars to Sibley

US 34 – Ottumwa to Mt. Pleasant

*Income data was studied for a 10-year period before and after highway expansion; these charts reflect the 20 years of before-and-after data studied for each of the 4-lane case study corridors.



Why Bypasses Are Not Recommended

- Bypasses are costly and impactful
- Minimal impact expected in communities with Super-2 highway
- Following existing US 30 has less impact on farmland and environmental resources
- Following existing US 30 does not change local travel patterns or railroad crossing needs
- Locations where a shift of US 30 could be considered
 - Locations in close proximity to the UP Railroad to allow for westbound passing lane construction
 - At Mechanicsville to improve US 30 traffic flow when trains are present



Following existing US 30 has less impact on farmland



Location along US 30 where shift could be considered due to close proximity to the UP Railroad



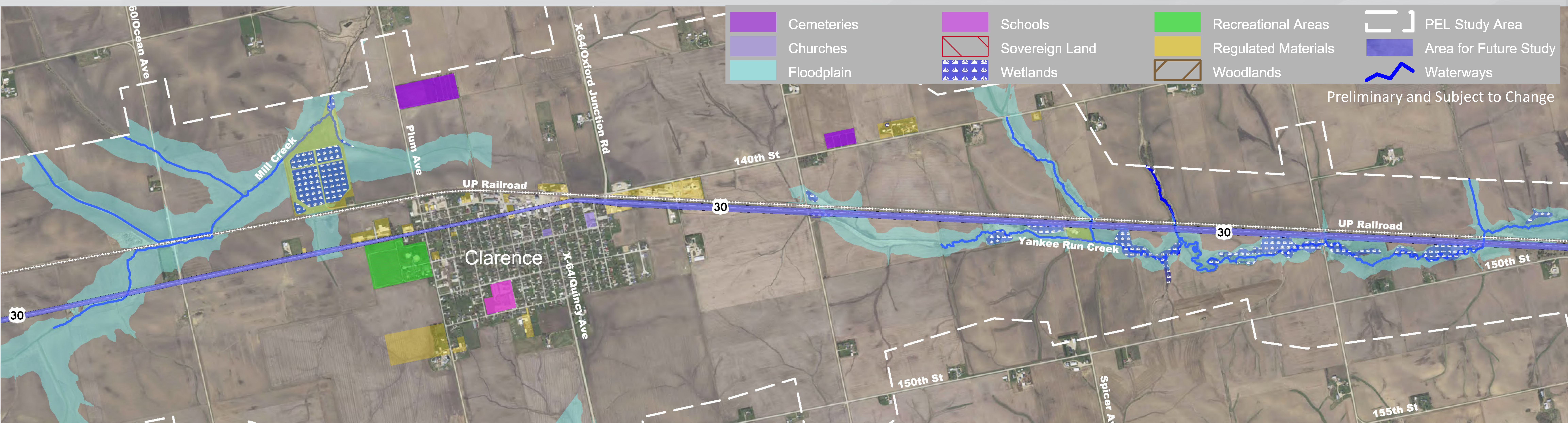
Mechanicsville



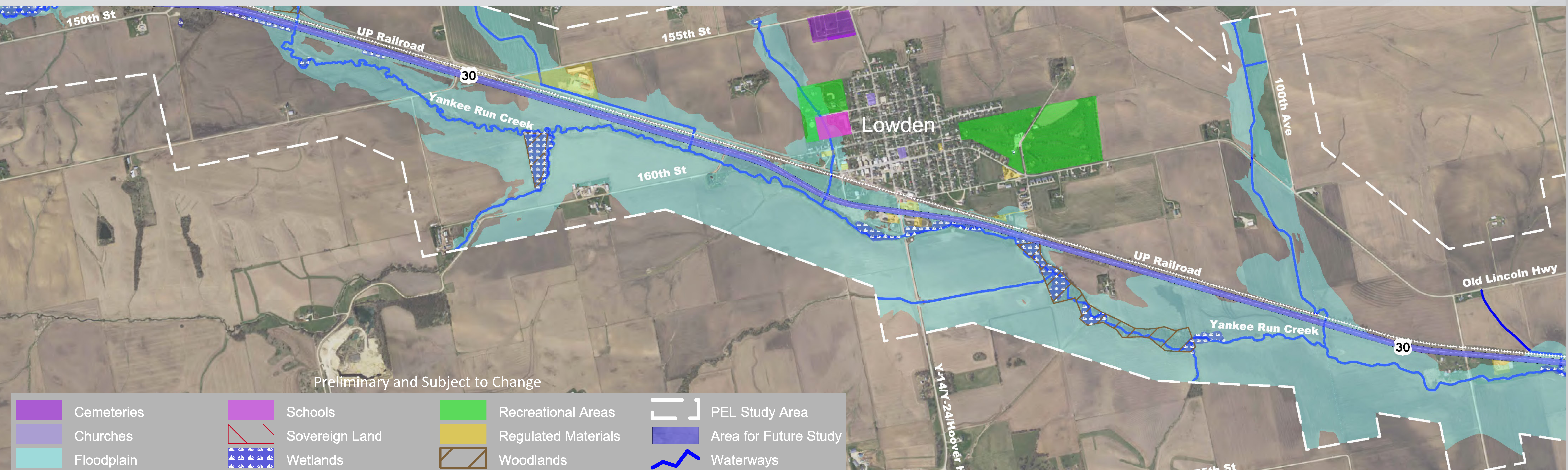
Stanwood



Clarence



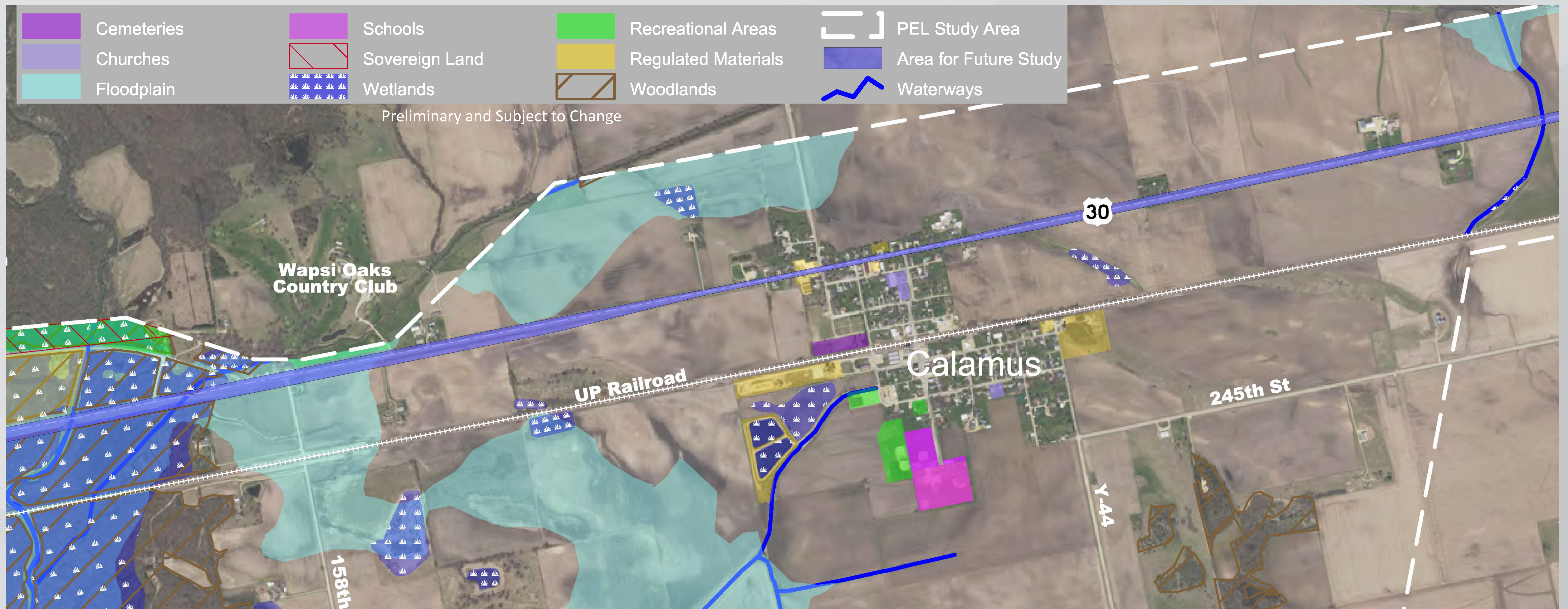
Lowden



Wheatland



Calamus



Grand Mound



US 30 Improvement Implementation Roadmap

- Improvements as opportunities present themselves
 - Part of maintenance and rehabilitation projects
 - As construction funding allows
- Possible improvement considerations (not in order of priority)
 - Improve the condition of the roadway through pavement upgrades and bridge rehab/replacements
 - Add passing lanes between each of the communities
 - Pavement widening and/or pavement markings
 - Addition of turn lanes/spot intersection improvements
 - Paved roadway shoulders (critical sections with farm equipment)
 - Rumble strips
 - Railroad and US 30 spacing improvements

