

INTERSTATE 380 PLANNING STUDY (PEL)

Vision for Infrastructure Investment - Final

Office of Location and Environment | December 2018



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EXECUTIVE SUMMARY

Iowa's Creative Corridor

Transportation is about connections – connecting people to jobs, services, and recreation. To Iowa's Creative Corridor, one of the state's fastest growing regions, connections mean even more. This seven-county region has united to promote its economic progress and sense of community through workforce, job, and cultural connections. As a result, Interstate 380 (I-380), the primary highway corridor connecting Cedar Rapids and Iowa



Source: http://iowascreativecorridor.com

City, is becoming crowded. To maintain and expand the transportation connections within the region and between the two metro areas, a strategic transportation plan is needed – one that meets the needs of today and the growth of tomorrow.

The I-380 Vision

The I-380 Vision is a long-term, multi-modal improvement plan for the I-380 Corridor to better interconnect Iowa's Creative Corridor. It entails an Integrated Corridor Management (ICM) approach which combines the widening and modernization of the existing I-380 roadway, bridges, and interchanges with new and potentially expanded interregional bus and carpooling services. The Vision provides more mobility options for today's and tomorrow's regional commuters. As the region grows, as new vehicle technologies emerge, and as the need for mobility options expands, the Vision's framework will accommodate these future changes. Flexibility within the plan, as it is implemented, allows today's diverse travel needs to be met while providing the necessary expandability for the future.

The I-380 Corridor Vision Benefits to Iowa's Creative Corridor

- Effectively serves current and future commuter-related travel between the Cedar Rapids and Iowa City metro areas.
- Supports and accommodates the region's long-term growth while enabling near-term improvements.
- Integrates commuting options between the metro areas.
- Incorporates existing and committed local metro area transportation plans and projects.
- Adapts to future mobility changes and vehicle technologies over time.
- Supports regional economic development, land use and environmental protection.

I-380 Study Corridor





Description and Features of the Integrated I-380 Vision

Strategy Description	Provisions for Future			
General Roadway Widening				
Reconstruct, widen and modernize the I-380 roadway and bridges from US 30 to I-80, improve the existing local interchanges, and use technology to manage incidents.	 Expandable roadway section for future growth. Coordinated planning at interchanges for future bus stops, trails, and park and ride lots. Preservation of the CRANDIC rail crossing for future possible reuse. Risk analysis at vulnerable waterway crossings. 			
Regior	nal Demand Management			
Implement a rideshare pilot program (called CorridorRides), telecommute and other employer- based strategies to reduce commuter- related congestion.	 Coordinated planning for potential park and ride lot near Penn St. Interchange. Opportunity to extend and expand CorridorRides at the end of the pilot period, based on performance, local/regional priorities, and long-term funding. 			
	Express Bus			
Implement initial Interregional Express Bus (IRXB) pilot services, called 380 Express, as a demonstration project, to provide regional commuter options.	 Coordinated planning for future potential bus stops - Wright Bros Blvd. and Penn Street. Consideration of peak-period shoulder operations with the I-380 widening design. Opportunity to extend and expand IRXB pilot services based on performance, local/regional priorities, and long-term funding. 			
٦	raffic Management			
Implement Active Traffic Management (ATM) measures with integrated traffic flow management to improve I-380 Corridor throughput and travel safety.	 Based on additional study, consideration of provisions within the I-380 widening design for future possible applications, such as ramp metering, traffic flow control devices, and others. 			
	Widen and Reconstruct Roadway CRANDIC Rai			



Local Interchange Improvement 🤙

Sensitive Area

I-80 / I-380 Interchange Project

Environmental Resource

Alignment (Horizontal / Vertical) Upgrade **Climate Vulnerability Area**

Potential Future Trail Crossing

Locations MP Mile Post



Implementing the I-380 Vision

The I-380 Vision provides an overall framework for the advancement of the operational and capital transportation improvements for the region. While the advancement of the roadway and ICM improvements are to be coordinated, each is dependent upon available funding and the relative priorities of the respective sponsoring agencies. Continued coordination of the planning and design of the various elements of the Vision will help ensure near-term projects are developed consistent with future, longer term improvements for an integrated multi-modal transportation system. Commitments currently underway by the Iowa DOT and local agencies, including the I-80/I-380 Interchange Project and its Transportation Management Plan (TMP) to mitigate traffic impacts during the construction period, provide the foundation for the Vision's advancement and long-term implementation.



Improvement Strategies Evaluated

- Regional Alternate Routes
- Regional Trails
- Regional Travel Demand Management
- Multi-modal
 - Regional Express Bus
 - Regional Commuter Rail
- I-380 Corridor
 - General Roadway Widening
 - Express Lanes
 - o Truck-only Lanes
 - Traffic Management

The I-380 Planning Study

The I-380 Vision was identified by the Iowa DOT as the best and most appropriate combination of strategies to meet the improvement goals. This recommendation was based on analyses of travel demand, traffic and safety operations, construction and maintenance costs, and potential impacts to environmental resources. Multiple improvement strategies were evaluated. Reasonable elements of each strategy, based on their fulfillment of the improvement goals and ability to complement one another, were then combined and packaged to form the Vision. For those individual strategies not included, provisions are included as appropriate to not preclude possible applications in the future, such as reuse of the existing



CRANDIC rail line for commuter rail. In support, the I-380 Planning Study included and incorporated public input through multiple public meetings and website comments.

Next Steps for the I-380 Vision

Next steps include:

- Committed Projects The lowa DOT and local agencies will complete the planning, design, construction and begin operations for:
 - I-80/I-380 Interchange Project
 - I-80/I-380 Transportation Management Plan
 - Automated Vehicle Technology Project
 - I-380/Forevergreen Road Interchange Project
 - Rideshare (CorridorRides) Pilot Program 0
 - IRXB (380 Express) Pilot Program 0
- **NEPA Study and Preliminary Design** In accordance with Iowa DOT's location study and NEPA (National Environmental Policy Act) requirements, the Iowa DOT will conduct a Categorical Exclusion environmental study and perform preliminary design for the I-380 roadway widening improvements between US

I-380 Vision **Future NEPA Analyses Preferred Design Alternative**

- **Typical Roadway Section** Determine the best initial and ultimate configurations based on construction costs, maintenance of traffic, right-of-way, and future expandability considering future AV operations and potential ATM measures.
- Constrained (Non-typical) Roadway Section – Determine refinements to reduce right-of-way (if any) and impacts to adjacent environmental resources in the Coralville Reservoir area.
- Local Interchange Improvements -Perform interchange improvement alternatives analyses including consideration of ICM provisions and construction phasing for Wright Brothers Blvd., 120th Street and Penn Street.
- **Climate Vulnerability Areas** Conduct risk analyses at each identified high-risk flooding location.

30 and Forevergreen Road (currently under construction).

- Active Traffic Management (ATM) (Managed Motorways) Study In coordination with the NEPA study, the Iowa DOT will study the potential application of ATM improvements and the impacts to the roadway design.
- **Final Design, Right-of-way Acquisition and Construction** Upon the approval of the NEPA study and as funding and priorities allow, the Iowa DOT will perform final engineering design, acquire right-of-way and begin construction of the I-380 roadway widening. Phasing of the improvements will depend on funding availability and state priorities, in coordination with the local agencies.
- **Long-term Traffic and Safety Monitoring** Following the completion of the roadway improvements, the Iowa DOT will continue to monitor and assess the impacts of AV operations, and depending on the outcomes of the NEPA study and the ATM study, the possible future expansion of the roadway and/or implementation of ATM measures, as needed.
- Regional and Local ICM Strategies Based on the recorded performance of the pilot carpooling and regional express bus programs, the local agencies will assess local and regional priorities to identify and secure funding for the continued and potentially expanded program operations upon the conclusion of the pilot periods.



1. GOALS AND OBJECTIVES

Iowa's Creative Corridor

The Cedar Rapids and Iowa City region, located in eastcentral lowa, is experiencing a cultural and economic renaissance. Spurred by the recovery from the record 2008 flood, this region is experiencing population, income and employment arowth outpacing the nation and the State of Iowa. With its prime location at the crossroads of Interstate 80 and 380 and its many business attractions, the region is enjoying a period of strong economic growth. This region, coined lowa's Creative Corridor, includes the seven counties of



lowa's Creative Corridor is a partnership between Cedar Rapids, lowa City and local communities to promote economic, lifestyle and cultural opportunities in the region. Source: http://iowascreativecorridor.com

Benton, Cedar, Iowa, Johnson, Jones, Linn and Washington counties. With Cedar Rapids and Iowa City as its economic centers, the region boasts of a population of around half a million, thirty Fortune 500 companies, multiple academic institutions and over two dozen communities.

Strategic Transportation Vision

The region's existing transportation network and distribution logistics capabilities are important contributors to the local economy. As lowa's Creative Corridor continues to grow, the demands on its transportation system and services will increase. The existing roadway and Interstate network is already showing signs of being overcapacity. While currently planned and committed projects by the lowa Department of Transportation (Iowa DOT) and the local communities will stem the tide, longer term system-wide planning is needed.



Downtown Cedar Rapids - the second largest city in Iowa.

In the future, to connect the growing workforce and promote commerce, effective mobility services will be needed within and between the region's communities, particularly linking Cedar Rapids and Iowa City. The Iowa DOT and the region's planning agencies have plans in place for



future local roadway and trail projects and expanded transit services for enhanced intercity mobility. However, while these plans have identified the need for improved regional connections, a system-wide plan does not currently exist. Previous regional transit studies have evaluated commuter bus and rail services between the metro areas, but not in the context of a comprehensive plan. Therefore, a longterm comprehensive strategic transportation plan is needed to:

- Serve future commuter-related travel between the Cedar Rapids and Iowa City metro areas;
- Support Iowa's Creative Corridor long-term growth and enable near-term improvements;
- Integrate commuting options between the metro areas;
- Incorporate local metro area transportation plans;
- Adapt to future mobility changes and vehicle technologies; and
- Support regional economic development, land use and environmental protection.

The I-380 Corridor Planning Study

The Iowa DOT is conducting the I-380 Corridor Planning Study (i.e., Planning Study) to evaluate the transportation system and develop a long-term strategic plan for mobility services between Cedar Rapids and Iowa City. This plan, called the I-380 Corridor Vision, focuses on the transportation linkages between these metro areas. As a long-term planning study, it will assess the existing system's ability to efficiently and safely meet current and future projected travel characteristics and demands. These assessments include the reshaping of future mobility and travel due to the emergence of advanced vehicle technologies. Improvement recommendations will be based on analyses of travel, system performance, costs and potential impacts to the environment. The Study's recommendations will enable the department and other agencies to advance near-term and local projects within the framework of the long-term vision.

The federally adopted Planning and Environmental Linkages (PEL) process is being used for the Planning Study. As such, the study's findings can be referenced by subsequent environmental and engineering studies for the implementation of the

What is a Planning and Environmental Linkages (PEL) Study?

A PEL Study is a systems planning process, adopted and endorsed by the Federal Highway Administration, used to identify solutions for transportation issues, priorities and environmental concerns. It is a concept-level decision-making tool supported by planning analysis.

Types of PEL planning decisions include:

- General mode, scope and concept for the improvements
- Environmental setting and issues to be addressed
- Plan for implementing and funding the improvements

PEL planning activities and analysis include:

- Travel characteristics and demands
- Economic development, land use and population
- Natural and manmade environmental resources
- Public involvement and coordination

Appendix A – Planning and Environmental Linkages Questionnaire provides a checklist for PEL process questions for the I-380 Planning Study.

Downtown Iowa City – the fifth largest city in Iowa.





recommended improvements, thereby streamlining the next steps in the process. The study will identify and evaluate a number of different types of improvement strategies, such as roadway and transit improvements. Through coordination and input from planning partners, local residents and public officials, the best plan will be identified based on mobility, environmental and cost considerations. The I-380 Corridor Vision will include an implementation plan based on local priorities for subsequent more-detailed planning and design, as funding allows.

Guiding Principles and Goals

To initiate the Planning Study, the Iowa DOT developed overall principles to guide the study process. This guidance was developed to ensure the department's broader objectives would be met.



Guiding Principles

Guiding Principles

The Study's guiding principles were established to maintain consistency and promote trust between all parties involved in the study, including the public. These include:

Guiding Principle	Description	Study Approach	
Good Stewardship	Find affordable transportation solutions that provide the right balance of providing efficient and safe travel while avoiding and minimizing impacts to the human and natural environment.	 Maximize the use of existing infrastructure Use evaluation measures reflecting system travel efficiencies Include potential environmental impacts in the overall evaluation 	
Transparency	Meaningfully engage the public throughout the study process and at key study milestones.	 Utilize communication tools that engage the public throughout the study Conduct communication events at major steps in the study process 	
Design Principles	Establish design principles to establish the standard from which the improvement goals will be set.	 Utilize a long-term planning horizon (2040) Include modern design features (75 mph) Incorporate effects of future automated vehicle technologies and operations 	

Study Goals

Goals were defined at the outset to frame what would be accomplished by the study and to set the study process. These include:

	Goal	Description
Goals	1. Engagement	Foster engagement by stakeholders throughout the study process by providing opportunities to share and collect information and help shape the outcome of the study.
Goals	2. Study Goals and Principles	Identify key goals and guiding principles to help shape the Vision for Infrastructure Investment.



	Goal	Description
Goals	3. Define Existing Conditions	Investigate the existing conditions and operations, the human and natural setting, and the potential impacts of identified improvement. Determine cost effective ways to increase mobility, safety and system efficiency.
Goals	4.Future Vehicle Technologies	Examine the system operations and review what capacity improvements may be required in consideration of emerging technologies.
Goals	5.Infrastructure Vulnerabilities	Evaluate the vulnerability of the infrastructure to flooding and snow events and what can be done in the context of project development to increase the resiliency of the infrastructure to future events.
Goals	6. Alternative Mobility Solutions	Evaluate alternative modes of transportation and determine what needs these modes serve as well as which strategies relieve or have the potential to relieve traffic congestion.
Goals	7. Vision	Within the context of public and agency involvement and considering the identified improvement needs, develop a Vision for Infrastructure Investment.

The I-380 Corridor Planning Study Process

The Planning Study process entailed a systems-based planning analysis that defined the improvement objectives, identified possible improvement strategies, evaluated them based on the defined performance measures, and recommended the best, or preferred improvement strategy - the I-380 Corridor Vision. As a system-level study, final details of the recommended strategy are not provided, but rather a general description of the concept and scope of the improvements is presented. The I-380 Corridor Vision identifies the recommended strategy's features and areas for more analysis to be performed in later, more-detailed engineering and environmental studies following the Planning Study. By defining the new vision, this study sets the stage for the follow-up studies, including the identification of important environmental issues and processes for the implementation of the improvements. Based on the priorities in fulfilling the identified objectives, as they develop over time and as funding allows, an overall implementation plan is provided.

I-380 Corridor Planning Study Local/Regional Planning Partners

The Iowa DOT is conducting the Planning Study in coordination with the region's local planning agencies. Along with the Iowa DOT, three planning agencies are primarily responsible for transportation planning within the region. These agencies work together to coordinate the region's transportation planning functions. East Central Iowa Council of Governments (ECICOG) is the seven-county regional planning agency that coordinates with the local communities and spearheads regional initiatives, such as regional trail and passenger transportation planning. Corridor Metropolitan Planning Organization (MPO) and MPO of Johnson County are the respective metro-area planning organizations for the Cedar Rapids and Iowa City urbanized areas.





As shown in *Figure 1*, in accordance with the PEL study process and the study's goals and guiding principles, the Planning Study entailed four principal steps: Initiate Study, System Evaluation, System Strategies and Vision. These steps were performed in succession, building on the findings and conclusions of the previous step. For each of these steps, separate analyses were performed and technical reports were prepared and published on the study's website. For the system evaluation, separate analyses for each of the system-level strategies were performed. The evaluation then combined the best elements of the system strategies into a singular, yet integrated plan. Throughout this process, public involvement and input were provided through the study's public website, including email updates and public



Public comments can be submitted on the study website.

meetings. Products and technical reports performed for each step were published and are available on the project website, including other additional supporting information. Additionally, the study was coordinated with the regional and local planning partners and the Federal Highway Administration.



Figure 1. I-380 PLANNING STUDY PROCESS



Existing Regional Transportation System and Services

Personal travel between Cedar Rapids and Iowa City is currently served by a system of transportation facilities and services. Consisting of highways, local roads, sidewalks and trails, rail lines and transit services, this system generally reflects the region's prevailing travel patterns. It interconnects the transportation systems of the two metro areas and connects the region to the state.

Regional Roadway System

Figure 2 shows the principal highway and roadway network within the region. As shown, I-380 is the primary highway route that serves north-south travel within the region. It directly connects the metro area roadway networks in Cedar Rapids and Iowa City. I-380 terminates at the I-80/I-380 Interchange just north of Iowa City and extends north through the Cedar Rapids metro area. Major interchange connections include the I-380/US 30 Interchange located south of Cedar Rapids. Other principal north-south routes within the region include US 151 to the west and Highway 1 to the east. Highway 965 provides a local north-south connection between southwest Cedar Rapids and North Liberty, crossing I-380 south of the Coralville Reservoir. This local highway is an extension of 6th Street SW in Cedar Rapids and Ranshaw Way in North Liberty.



Figure 2. REGIONAL ROADWAY SYSTEM





Regional Transit Systems

All of the counties and communities within the region have some type of public transportation services. These are provided through a combination of demandresponsive and fixed route services. Within the smaller communities and rural areas, most of the service is demand-responsive targeting seniors and persons with disabilities and special needs, although all of these services are open to the general public. These services are provided through numerous public and private service providers based on location within the region. For Cedar Rapids, Iowa City and Coralville, these communities provide regularly scheduled public bus transit services to their respective service areas. These services entail dedicated fixed bus routes, relatively frequent service at peak periods, and expanded services to meet the needs of employers, students and others. In

I-380 Corridor Planning Study - Intercity Public Transit Agencies

- Cedar Rapids Transit Fixed-route services within Cedar Rapids, Hiawatha and Marion and operated as a department within the City of Cedar Rapids. Operates 12 routes with a service area that covers approximately 22 square miles.
- **Iowa City Transit** Fixed-route services within Iowa City and University Heights operated by the City of Iowa City. Operates 28 routes with a service area of approximately 25 miles.
- **Coralville Transit** Fixed-route services within Coralville, North Liberty and Downtown Iowa City and the University of Iowa Hospitals. Operated by the City of Coralville with six fixed routes and a service area that covers 12 square miles. North Liberty contracts with Coralville for services.
- **Cambus** A University of Iowa service for students, faculty, staff and the general public. Cambus operates 15 fixed routes with a service area of 30 square miles throughout the University of Iowa Campus and portions of Iowa City and Coralville.

addition, the University of Iowa provides fixed-route bus services, inlayed within the Coralville and Iowa City service areas, for students, faculty, staff and the general public.

Currently, there is limited public interregional transportation service within the region. Some of the rural on-demand service providers offer out-of-county service to Iowa City, however, these trips are primarily for medical purposes. Regularly scheduled interregional services are limited to private providers – the University of Iowa vanpool services for employees and Burlington Trailways. Burlington Trailways provides two trips per day between the Cedar Rapids Eastern Iowa Airport and Downtown Iowa City.

Regional Trail Systems

Increasingly in Iowa, residents are using bikes as an alternative mode to commute to their work, in addition to recreational uses. Communities throughout the region have added trails to their infrastructure systems and trails are included in the region's long-range transportation plans.

Currently, there are no existing trails that fully connect the metro area trail systems of Cedar Rapids and Iowa City. However, as shown in *Figure 3*, the ECICOG (East Central Iowa Council of Government) *Comprehensive Regional Development Strategy 2040* has identified the completion of the American Discovery Trail between Cedar Rapids and Iowa City (shown in red) as a regional priority. Both Cedar Rapids and Iowa City have similarly prioritized local trail connections to this planned regional trail. In addition, other planned and future regional trails (shown in green) have been identified, including potential crossings of I-380. These future potential crossings are located across I-380 at 120th Street, Penn Street and Forevergreen Road.





Figure 3. PLANNED REGIONAL TRAILS

Source: ECICOG Comprehensive Regional Development Strategy 2040

Freight Rail System

Existing freight railways and operators located within the region include several Class I, II and III railroads. As shown in *Figure 4*, the Cedar Rapids & Iowa City Railway (CRANDIC) is the only existing rail line connecting the Cedar Rapids and Iowa City metro areas. This 27-mile long rail line generally parallels I-380 and is located within growing residential, commercial and light industrial areas. The existing rail line is comprised of a single main track with multiple local sidings.

Amtrak currently operates two long-distance trains within the State of Iowa – the California Zephyr and the Southwest Chief. These Amtrak services are provided on existing freight lines located outside of the region. There is currently no intercity or commuter passenger rail service provided within the region. However,



Figure 4. REGIONAL RAIL SYSTEM



intercity passenger rail service between Chicago and Moline, Illinois, and Iowa City has been studied as part of the Midwest Regional Rail Initiative (MWRRI). This potential future intercity passenger rail service would terminate at an Iowa City station in close proximity to the CRANDIC rail line. While planning studies for the MWRRI have been completed, new passenger rail service between Chicago and Iowa City is not currently planned or funded.

Other Regional Transportation Studies

A number of other regional transportation planning studies have been completed which specifically address commuter-related travel. These previous studies include:

I-380 Coralville to Cedar Rapids Corridor Multi-Modal and Operations Study (Big MO) – In 2015, the Iowa DOT initiated a review and assessment of potential strategies to address congestion along I-380 between Cedar Rapids and Iowa City. This study was coined the "Big MO". Its intent was to define an overall master plan and identify implementation strategies within a Transportation Management Plan (TMP) to mitigate and manage the traffic and operational impacts of the planned I-80/I-380 Interchange reconstruction project, scheduled to begin construction in the fall of 2018. Strategies within the TMP were also identified as precursors for potential longer term application, post interchange construction. These short-term mitigation strategies were evaluated for long-term corridor viability. This study identified three packages of follow-up implementation strategies and additional study, leading to implementation. In addition to temporary strategies specific to the interchange construction, the Iowa DOT has advanced elements of these packages into implementation in support of both the interchange construction and long-term corridor benefits.

TMP Package	Elements of Package
Package 1: Commuting Options	Assess, develop and implement public Interregional Express Bus (IRXB) and vanpool services as pilot programs during the interchange construction period.
Package 2: Public Information/ Communications	Develop and implement an Engagement and Communication Framework and Plan in advance of and during the interchange construction.
Package 3: Additional Congestion Mitigation and Operational Improvement Strategies	Assess, develop and implement additional strategies during the interchange construction, including: Construction/Work Zone Strategies; Corridor/Network Management Strategies; Intelligent Transportation System (ITS)/Intelligent Work Zone (IWZ) Strategies; and Traffic Incident Management (TIM) Strategies.

• Cedar Rapids to Iowa City Passenger Rail Study – A study was conducted to examine the conceptual feasibility of new passenger rail service between Cedar Rapids and Iowa City using the existing CRANDIC rail line. This study was commissioned by the Iowa DOT and CRANDIC, in coordination with other stakeholders, and was documented in a final report entitled *Iowa City-Cedar Rapids Passenger Rail Conceptual Feasibility Study Final Study, October 2015.* This study assessed multiple fixed guideway transit technologies including streetcar, light rail and commuter rail. For each potential technology, conceptual service, operating and improvement plans were developed, including order-of-magnitude construction and operating costs. Commuter Passenger



Rail was identified as the lowest cost option. Conclusions included the need for further evaluation of phasing options, more detailed study and the identification of funding.

 Iowa City to North Liberty Passenger Rail Conceptual Feasibility Study – Based on the findings of the earlier study, the Iowa DOT, CRANDIC and the Johnson County MPO commissioned a study of an initial phase of commuter passenger rail service, extending between Iowa City and North Liberty along the CRANDIC rail line. This study was

documented in a final report entitled lowa City-North Liberty Passenger Rail Conceptual Feasibility Study Final Study, October 2016. More detailed planning and estimates of construction and operating costs were provided. This study determined "Passenger rail service in the CRANDIC Corridor between lowa City and North Liberty could be considered for implementation in the future by stakeholders, based upon need for the service and the availability of funding for



Passenger rail service along the CRANDIC Railway is a potential future improvement, based on local priorities and funding. Source: Iowa City-North Liberty Passenger Rail Conceptual Feasibility Study, October 2016

construction and implementation." Commuter passenger rail service is not currently planned or funded at this time.

- **Rural I-380 Corridor Needs Assessment** The lowa DOT conducted a feasibility study of the rural portion of I-380 between Cedar Rapids and Iowa City. This study focused on the current and future needs of I-380 from I-80 to the Linn County line. Findings of this study were documented in a report entitled I-380 Rural Corridor Feasibility Study, Final Needs Assessment Report, May 2012. Based on assessments of traffic, safety, pavement and bridge conditions, drainage and adjacent environmental issues, improvement strategies for I-380 were identified for more detailed consideration and evaluation. These included two types of strategies to address anticipated traffic growth capacity addition strategies and congestion reduction strategies. Capacity addition strategies included widening I-380 with two to four additional travel lanes, plus capacity improvements at both the 120th and Penn Street interchanges. Congestion reduction strategies to be considered further included management measures to reduce the travel demand during the peak periods, such as enhanced interregional transit services, carpooling and telecommuting. This study recommended more detailed evaluation of the traffic-related needs, further evaluation of widening I-380 to either six or eight lanes, and assessments of new interchange configurations at the 120th and Penn Street locations.
- Urban I-380 Corridor Needs Assessment In parallel with the rural feasibility study, and in close coordination, the Iowa DOT conducted a feasibility study of the urban portion of I-380 between Cedar Rapids and Iowa City. This study, documented in a report entitled *I-380 Corridor Feasibility Study, Phase 1 - Needs Assessment Final Report, October 2010*, focused on I-380 north of the Johnson/Linn County line through the Cedar Rapids metropolitan area. This study identified the traffic capacity, safety and



infrastructure issues within the study area and laid out the process for identifying and evaluating solutions to be studied further.

• **Iowa Commuter Transportation Study** – In response to direction from the Iowa State Legislature, the Iowa DOT conducted a study to assess public transit improvements

between Cedar Rapids and Iowa City. The study's findings were documented in a final report entitled Iowa Commuter Transportation Study, December 2014. The ICTS report recommended a package of commuter-related transit improvements, based on future funding and local priorities, including new interregional fixed route bus services connecting Cedar Rapids, North Liberty, Coralville and Iowa City (see *Figure 5*). Additional recommendations included expansion of the region's subscription bus services, public vanpool program and public carpool program. This study referenced and reassessed earlier studies for commuter rail services, but due to higher implementation costs and effectiveness, commuter rail was recommended as a possible future improvement, to be reevaluated by the local agencies in the future. Identified features of the new interregional bus service included park and ride facilities; the consideration of transit priority measures, such as dedicated travel lanes; and a guaranteed ride home program for transit customers. The recommended service plan included daily two-way premium express service with a 30-minute headway during peak periods, a minimum number of stops and terminal operations between downtown Cedar Rapids and downtown Iowa City with routing along I-380.

Figure 5. PLANNED INTERREGIONAL BUS SERVICE



Source: Iowa Commuter Transportation Study, December 2014

Based on local priorities and funding, future potential interregional express bus service would operate along I-380 between downtown Cedar Rapids and downtown Iowa City with multiple potential stops, including park and ride facilities near the Eastern Iowa Airport and North Liberty.



Existing and Planned Regional Projects

Current and planned transportation projects to serve interregional travel between Cedar Rapids and Iowa City are shown in *Figure 6*. These projects include the following:



Figure 6. EXISTING AND PLANNED REGIONAL PROJECTS

I-380 Smart Corridor – The pace of technology advancements for automated vehicles is accelerating. A number of automobile manufacturers are planning semi-autonomous vehicle production and release to the American consumer within the next decade. In preparation, the Iowa DOT has initiated an Automated Vehicle (AV) Technologies Project, with initial focus on I-380 between Cedar Rapids and Iowa City. In partnership with the AV industry, this project aims to further research, develop, test, operate and implement AVs within the state. The initiative will be developed in multiple phases – discovery, scoping and implementation – leading to deployment of pilot projects. I-380 has been identified as an initial AV pilot project. A visioning document to guide the initiative has been prepared, entitled Automated Vehicle Technologies Project, Vision



Document Final, March 2017. The Iowa DOT has identified a set of key capabilities necessary to advance its AV readiness and is partnering with the private sector and academia to develop and implement its AV plan. This plan prioritizes AV deployment opportunities, identifies how to engage with the private sector, and lays out the supporting research and development activities for the initiative.

Iowa DOT AV Project Goals

Create an environment where automated driving and advanced transportation technologies can thrive in Iowa:

- Build new capabilities that will assist people to drive more effectively and move freight more efficiently than today.
- Facilitate highly automated driving as it becomes available.
- Make Iowa a leader in offering an AV-ready driving environment.

Source: Automated Vehicle Technologies Project, Vision Document Final, March 2017

- I-80/I-380 Interchange The existing systems interchange between I-80 and I-380 is being fully reconstructed and improved to modernize the interchange and improve traffic and safety operations. This project is currently planned for construction, beginning in 2018 and extending through 2025. As shown in *Figure 7*, it includes the reconstruction and improvement of the I-380/Forevergreen Road Interchange located to the north and six-lane widening of I-380 between I-80 and Forevergreen Road. Construction will be phased through multiple smaller projects. During construction, as outlined in the TMP, existing traffic will be maintained and a detour plan will be implemented to manage existing travel through and around the interchange.
- Carpool and Vanpool Services Based on the ICTS recommendations and the TMP, CorridorRides is an initiative spearheaded and administered by the ECICOG, in partnership with the Iowa DOT's statewide ridesharing program and local planning agencies, to promote and encourage carpooling and vanpooling within the region. Participants benefit from lower commuter



https://www.iowarideshare.org/Public/Home.aspx



www.corridorrides.com

costs and the region benefits from fewer vehicles along I-380 and other regional roads, as well as lower vehicle emissions. This program is designed to inform the public and businesses of commuting options by matching interested customers with others based on shared points of travel origination and destination. Through promotional activities and inquiries, potential customers are directed to a public website to register for commuting services. Once registered, nearby registrants with similar commutes and schedules are matched. Carpools are then selfadministered with the participants sharing in the costs accordingly. For vanpools, through federal funding secured through the Iowa DOT, CorridorRides has several vans available for use. The vanpool program is a pilot program and moving forward, its success will continue to be monitored for future federal funding. CorridorRides is an important strategy by the Iowa DOT to manage traffic during the multi-year I-80/I-380 Interchange construction.





Figure 7. IOWA DOT I-80/I-380 INTERCHANGE PROJECT

For more information about the project, please visit the project website: <u>https://iowadot.gov/i80-i380/i80-i380/i80-i380-home</u>.



Interregional Express Bus Service – As part of the I-80/I-380 Interchange TMP, and as an initial demonstration of the ICTS recommendations, the region has initiated Interregional Express Bus (IRXB) between Cedar Rapids and Iowa City. The Iowa DOT is a sponsoring agency, in partnership with the local transit providers, with administrative oversight and operations provided by ECICOG. Current funding for this new service, which began in the fall of 2018, is being provided by the Iowa DOT for the duration of the interchange construction, with the understanding that future funding beyond the pilot program would need to be secured by the regional and local agencies. As part of the menu of commuting options for the region initiated by the TMP, this pilot program is projected to potentially convert between three and half to seven percent of peak hour commuter trips to transit.

The initial IRXB service will operate on weekdays between downtown Cedar Rapids and downtown lowa City using I-380 and I-80. This initial service will include five southbound and three northbound



380 Express is a pilot program for Interregional Express Bus (IRXB) Service. Source: <u>www.380express.com</u>

stops with 30 minute peak period and 60 minute mid-day operations. Initial stops planned along I-380 include Kirkwood Community College using existing parking and station facilities through a partnership arrangement.

- Local Roadway Projects As part of the TMP, a number of local roadway projects are being planned and constructed. These projects, being developed jointly by the lowa DOT and the local communities, will provide improved travel routes during the construction in addition to long-term overall system benefits. In advance of the system interchange construction, the City of North Liberty and the department will construct the I-380 /Forevergreen Road Interchange and the associated improvements to Forevergreen Road. In coordination with these improvements, the City of Tiffin is planning to widen and improve Park Road, which runs parallel to and west of I-380, between Forevergreen Road and US 6. Also in coordination, the City of Coralville is planning to widen Coral Ridge Avenue (i.e., Highway 965) from two lanes to four between Holiday and Forevergreen Roads. These planned local projects, combined with the department's plans to improve the local I-80 interchange at Highway 965, located just east of the system interchange, will provide an improved local road system in and around the I-80/I-380 Interchange.
- I-380 Widening (Linn County) Connections 2040, The Corridor MPO's 2040 Long Range Transportation Plan, July 30, 2015, amended on June 28, 2017, identifies the future transportation plans for the Cedar Rapids Metropolitan Planning Area, which encompasses Linn County. Roadway projects serving interregional travel between Cedar Rapids and Iowa City included in the financially-constrained plan include six-lane widening of I-380 between the I-380/US 30 Interchange and the MPO boundary at the Johnson County line.



- I-380 Widening (Johnson County) The MPO of Johnson County adopted its current long range transportation plan in May 2017, entitled *Future Forward, 2045 Long Range Transportation Plan.* Included in the fiscally-constrained plan are several future projects that serve interregional travel between Cedar Rapids and Iowa City, including:
 - Six-lane widening of I-380 between the I-380/Forevergreen Road Interchange and the MPO boundary.
 - Multiple local road projects located within North Liberty, including the widening of Penn Street for additional roadway lanes and a pedestrian/bike lane at the I-380/Penn Street Interchange.

Regional Travel Patterns

Understanding the region's general travel patterns – where trips are generally coming from and going to – helps guide the transportation planning process. Commuter travel within the region consists of dispersed travel patterns from scattered points of origination (i.e., home) to points of destination (i.e., work).

To assess the prevailing commuter patterns and attractions between the metro areas of Cedar Rapids (Cedar Rapids/Hiawatha/ Marion) and Iowa City (Iowa City/Coralville/North Liberty), 2006-2010 census origination and destination data were aggregated for each metro area. As shown in *Table 1*, roughly five percent of workers residing in the Cedar Rapids metro area work in the Iowa City metro area. These workers represent around six percent of the total employment within the immediate Iowa City area. Similarly, roughly five percent of workers in the Iowa City metro area commute to the immediate Cedar Rapids area, or around three percent of the Cedar Rapid's total employment. Combined, commuters between these two communities represent around ten percent of all employment within the metro areas, or around 7,530 one-way commuter trips in 2010. These trips represent the commuter-related travel that could be served by interregional transit services and likely contribute to the existing peak hour traffic volumes along I-380 between the communities.

Origination (Metro Area)	Destination (Metro Area)	Total Commuters	% of Origin Workers	% of Destination Workers
Cedar Rapids	lowa City	4,159	5%	6%
Iowa City	Cedar Rapids	3,371	5%	3%

Table 1. COMMUTER TRAVEL BETWEEN CEDAR RAPIDS AND IOWA CITY METRO AREAS

Source: US Census Bureau, American Community Survey 2006-2010 Iowa DOT, Iowa Commuter Transportation Study, December 2014

The I-380 Corridor Planning Study Area

Based on the interregional focus of the Planning Study, the area of study is defined to encompass the existing, planned and potential transportation system that serves the prevailing travel patterns between Cedar Rapids and Iowa City. Accordingly, the study's Area of Influence, as shown on *Figure 8*, extends between the downtown areas of Cedar Rapids and Iowa City and encapsulates US 151 to the west and Highway 1 to the east. This area includes the



CRANDIC rail line between the communities. This defined Area of Influence allows for a system-wide assessment of the existing transportation system that serves north-south commuter travel and potentially interacts with I-380. It also captures the limits of previous planning studies and planned commuting solutions, such as the IRXB pilot project.



Figure 8. STUDY AREA

Within the influence area, the I-380 Study Corridor is defined along the existing I-380 alignment extending from the I-80/I-380 Interchange to the I-380/US 30 Interchange to the north. As the predominate travel route for commuter travel with the highest traffic volumes, the Study Corridor is centered along I-380. The evaluation and assessment of potential improvements to I-380 will be focused within these corridor limits. Given the proximity of environmental constraints along the Corridor, especially at the Coralville Reservoir, and the study's principle to leverage existing infrastructure, the Study Corridor will be focused within the existing I-380 right-of-way and immediate adjacent areas to limit potential impacts. The system improvements at I-80 to the south, and the planned future widening of I-380 north of US 30 provide connectivity and continuity for improvements within the defined Study Corridor.



The I-380 Corridor Traffic Volumes

Future traffic volumes along the I-380 Corridor were developed for the Planning Study using existing traffic count data and traffic growth factors from the Iowa Statewide Travel Demand Model iTRAM. Because of the commuting characteristics of the Corridor, peak-hour traffic volume projections were developed for both the AM and PM peak periods. Figure 9 and Figure 10 show the existing (2015) and 2040 projected traffic peak-hour traffic volumes for the southbound and northbound directions, respectively. These estimates do not include additional future traffic demand from the emergence of AVs. As shown, by 2040, current peak-hour traffic volumes are projected to grow between 45 and 53 percent, depending on location. Due to the projected land development within and around North Liberty and destinations in the Iowa City area, the highest growth is expected in the southern end of the Corridor.

The I-380 Study Corridor

- Typical four-lane divided rural Interstate section
- Length of approximately 16 miles
- Rest area between Wright Brothers Blvd. and 120th Street
- System interchanges with I-80 and US 30
- Local interchanges at:
 - Wright Brothers Blvd.
 - o 120th Street
 - o Penn Street
 - Forevergreen Rd (Under Construction)



Figure 9. I-380 EXISTING SOUTHBOUND PEAK-HOUR TRAFFIC VOLUMES







Figure 10. I-380 EXISTING NORTHBOUND PEAK-HOUR TRAFFIC VOLUMES

Future Shifts in Travel Characteristics

With the advent of new driverless vehicle technologies, the Iowa DOT has initiated the Automated Vehicle (AV) Technologies Project, with special emphasis on the I-380 Corridor as a pilot demonstration. AVs are vehicles enabled with technology which allows the vehicle to control parts of the driving task under a range of driving circumstances. These new technologies, as they develop, emerge and penetrate the marketplace, will have revolutionary



Automated Corridor

impacts on travel. In the future, travelers choices will expand due to greater travel access and opportunities afforded by AVs. In many cases, overall travel is expected to increase in the future. However, under vehicle control and operations, AVs require less space, resulting in greater capacities in travel lanes. And given that a large majority of accidents today are due to human error, AVs are expected to significantly improve roadway safety. Recognizing the impending transition to an AV fleet, the AV Technologies Project is intended to prepare the I-380 Corridor for these future shifts in travel demand and operations and maximize their benefits to travelers. These benefits to the I-380 Corridor include:

- · Reducing the number of crashes related to human factors and weather
- Making significant improvements to highway capacity without additional construction
- Reducing aggressive driving
- Improving travel efficiency and reliability
- Improving mobility to disabled and senior citizens
- Improving fuel efficiency through vehicle drafting



The future transition to an AV fleet introduces many challenges for transportation officials. Among these is how to incorporate the impacts of changing traveler behavior and accommodate AV technology requirements when planning for long-term transportation investments, such as this Planning Study. Through the AV Technologies Project, the Iowa DOT is in the process of building I-380 as a Smart Corridor. This will entail constructing communications and sensing technology to enable AVs to deliver increased safety and mobility benefits to travelers. Moving forward, these improvements will enable the Corridor to maximize the benefits of AV operations, which could potentially impact the degree and timing of other capacity improvements within the Corridor. These AV improvements are incorporated into the planning and evaluation of the long-term



The I-380 Vision incorporates the implementation of AV infrastructure to maximize the future benefits of AV operations.

improvement strategies evaluated and recommended by this Planning Study.

To support the Planning Study, a needs analysis was conducted to account for AVs in the future I-380 design – the *Automated Corridor Technical Memorandum*. The analysis approach acknowledged the uncertainty involved with technology advancements and market adoption and systematically accounted for that uncertainty to drive a robust set of conclusions and recommendations for the Planning Study. This analysis considered multiple future scenarios. Findings of the analysis to be incorporated into the Planning Study include:

AV Considerations in I-380 Corridor Improvement Planning			
Scenario Planning (Range of AV Adoption Rates)			
AVs will serve as the primary vehicle type along I-380 in the future and will substantially			
increase traffic demand along I-380. Under the most likely impacts, a 100 percent AV fleet			
adoption would likely increase I-380 traffic between 14 percent and 20 percent. Design			
projects need to consider how current design practices might change to accommodate			
future trends, including AVs. The Planning Study should include scenarios that examine			
the sensitivity of increased demand and its impact on the Corridor needs.			
Traffic Capacity and Quality of Service			
Near-term AV adoption at lower levels would not measurably impact I-380 traffic			
operations and average travel speeds. In the near-term, mobility needs across most of I-			
380 warrant additional lanes without AVs. Higher levels of automation show a substantial			
increase in the efficiency of I-380 to carry higher traffic volumes. This means in the long-			
term, high AV adoption would extend the period before any additional lanes are needed			
beyond the near-term improvements to maintain acceptable traffic operations.			
Safety			
AVs are capable of preventing the majority of car crashes that occur on I-380 today. The			
number of crashes per mile will decrease by nine percent at a 20 percent AV adoption rate			
and a 55 percent reduction at 85 percent adoption compared to an improved Corridor in			
the absence of AVs.			
Future Proofing			
Future uncertainty needs to be considered in the design of I-380 to provide flexibility to			
operate under the full range of options identified in the AV scenario planning process.			



Evaluation of Existing Transportation System

Mobility

Mobility reflects the efficiency of travel and is measured in a number of ways. Based on existing and projected traffic, the ability of the transportation system to convey the traffic demand within acceptable limits can be measured to gauge its mobility performance. Acceptable standards are expressed by levels of congestion and travel speeds or times. Access to transportation opportunities, for travelers needing or choosing public transit services, is another measure of mobility.



Existing Conditions and Operations

Congestion (Level-of-Service)

One of the industry's standard approaches to measuring roadway congestion is Level-of-Service (LOS). It gauges how well a roadway operates compared to its capacity or ability to convey traffic and reduce congestion. A standardized scale is used, ranging from LOS A to LOS F, in descending quality, with LOS A being best. The Iowa DOT has established an operating goal of LOS B or better for rural I-380 and LOS C or better for urban I-380.

LOS analyses were performed for the I-380 mainline lanes and the on-ramp and off-ramps for the three local interchanges. As shown in *Figure 11* and *Figure 12*, for both the AM and PM peak periods, the majority of the Corridor currently operates near or over acceptable operational levels for a rural Interstate. By 2040, the full corridor is projected to have unacceptable operations in both the AM and PM periods. Similarly, the existing interchanges have unacceptable operations at the on-ramp and off-ramp locations in 2040. These projections do not include AV considerations, which would likely improve the Corridor's overall operations in the future. However, the improved operations from AV technologies are not anticipated in the immediate future. To meet the LOS goal, additional travel lanes are needed in the near-term.

Figure 11. I-380 EXISTING SOUTHBOUND PEAK-HOUR TRAFFIC LEVEL-OF-SERVICE







Figure 12. I-380 EXISTING NORTHBOUND PEAK-HOUR TRAFFIC LEVEL-OF-SERVICE

Travel Times

Typical travel times and travel delay provide additional measures of mobility. Travel times are a function of the prevailing travel speeds – as prevailing speeds decrease, the overall travel times increase. Traffic congestion reduces the prevailing travel speeds due to the increased vehicle densities and reduced space to maintain safe vehicle operations. Travel speeds would be lower in areas and at times of traffic congestion, resulting in travel delays.

Utilizing traffic data from INRIX, a third-party collector of traffic operational data, the average weekday daily travel speeds within the Corridor were developed for the month of January 2017. The typical daily travel speeds are shown in Figure 13 and Figure 14 for the four I-380 segments between the existing interchanges. Weekdays with noticeable events affecting travel speeds, such as weather or incidents, were excluded from the analysis. As shown, travel speeds are generally maintained throughout a typical weekday. Throughout the Corridor, the AM peak period does not show speed reductions due to commuter-related congestion. However, during the PM peak period, which generally has higher peak-hour traffic volumes, some reductions in travel speeds are evident, ranging from two to three mph. These observations are consistent with the LOS analysis, which shows existing operations during the PM peak period exceeding acceptable service levels at which point speed reductions, and travel delay, would be expected. In the future, as traffic continues to grow within the region and Corridor, travel delays due to congestion would be expected to increase and become more impactful during both the AM and PM commuting periods. Along with AV supportive infrastructure, additional travel lanes along I-380 are needed to maintain acceptable travel times through the Corridor in the future.





Figure 13. I-380 EXISTING SOUTHBOUND TYPICAL TRAVEL SPEEDS





Transit Access

Access to public transportation provides commuters travel options, and for those unable to travel by personal automobile, the opportunity to travel. The planned IRXB services will provide new access and opportunities for commuters desiring express transit services between Cedar Rapids and Iowa City and along the I-380 Corridor. Initially planned services will be weekday only, but could be expanded in the future through the weekend and further expanded for weekdays – thereby increasing transit access. Access will be provided through the existing intercity bus systems at intermodal downtown stations and through park and ride lots located along the Corridor. Additionally, existing and expanded regional carpool and vanpool services through CorridorRides provide commuters further choices, thereby providing the benefits of lower costs and reduced impacts to the natural environment. Existing on-demand transit



services offered by the regional transit agencies provide opportunities for those needing transportation assistance, but these services are not designed for daily commuter services.

Safety

Improved safety is a foundational goal for the Iowa DOT. It is emphasized in all of the department's activities and is a cornerstone of their mission. The overarching goal is to eliminate crashes, injuries and fatalities on Iowa's roadways. Improving Iowa's roadway safety performance impacts and benefits everyone – both residents and the traveling public.



Through aggressive media outreach, the lowa DOT's Zero Fatalities campaign has successfully engaged thousands of lowans on the topic of safety.

A roadway's safety performance is typically measured by the number and severity of crashes. Safety analyses of recorded incidents between 2011 and 2015 indicate that overall, the I-380 Corridor has crash rates lower than the statewide average for rural freeways. Two exceptions include the I-80/I-380 Interchange area, which is to be reconstructed, and the area surrounding the rest area between the Wright Brothers Blvd. and 120th Street interchanges. The existing rest area's tapered entrance and exit ramp configuration is the likely cause for the higher crash rate at this location. With the State's goal and campaign for zero fatalities, and given the critical public benefit of improved safety, improvements to the Corridor, consisting of a widened and more accommodating roadway, are needed. These improvements should include the consideration of longer acceleration and deceleration distances at the rest area ramps. In addition, the planned deployment of AV infrastructure within the Corridor will improve the system's overall safety performance.

System Preservation

One of the Iowa DOT's primary functions is to maintain the State's highway system in a state of good repair. Proper and proactive maintenance of the State's roadways and bridges affects traveler safety and saves taxpayers money. As one of the faster growing Interstates, effectively maintaining the I-380 pavement and bridges is critically important.

The I-380 Corridor's pavement and bridges are currently in a general good state of condition. Originally built in the 1970s, the existing infrastructure is over forty years old. Through continued maintenance and rehabilitation efforts, the department has maintained a good state of repair. However, due to age and continued use, these efforts will likely need to increase in the future. At some point, reconstruction of the infrastructure will be needed, in lieu of more extensive rehabilitation. Improving I-380 with a new and widened roadway would reduce the need to rehabilitate the existing pavement and bridges in the future.

Substandard Design

Today's modern Interstate design standards are quite different from when I-380 was originally designed and built. A roadway's design parameters, such as horizontal and vertical curvature, are primarily based on design speed. For today's modern rural Interstates, 75 mph is the typically desired design speed. As I-380 was originally designed and built in the 1970s, design



speeds and criteria have changed. Modern Interstates provide more gradual and gentler horizontal and vertical curves. In addition, modern roadway sections have been updated, such as wider shoulders and better pavement and roadside drainage, to provide a safer overall driving environment.

Based on modern design standards, there are three locations where the existing I-380 alignment does not adhere to the horizontal curve standard – near the Highway 965 crossing, near the Coralville Reservoir and north of 120th Street. Similarly, there are two locations within the Corridor that do not meet the vertical curve standard – at the US 6 crossing, which is being reconstructed as part of the I-80/I-380 Interchange project, and the crossing over Highway 965. Overall, the existing roadway section does not meet the modern standards for median width, the depth of the median for drainage, the cross-slope



Today's modern roadway design standards provide a safer and more forgiving roadway environment for traveling vehicles.

within the median and the outside shoulder width. Rebuilding I-380 would provide a modern 75 mph design standard along the full Corridor.

Maintenance of Traffic

A significant issue is the department's ability to maintain traffic along I-380 during major pavement and bridge rehabilitation or reconstruction. During these activities, traffic lanes are temporarily closed and work is staged to maintain one lane of traffic in each direction – resulting in significant travel delays. This is especially a challenge during the peak commuter travel periods, when traffic volumes are the highest. Maintaining traffic during these activities significantly impacts travel safety and reliability, and increases the department's maintenance costs. Providing an improved and widened roadway would better enable the department to maintain two lanes of traffic during major rehabilitation activities, thereby reducing traffic impacts and improving safety.

Resiliency

The region's transportation system entails a complex network of highways, local roads, transit systems, communications, vehicles and travelers. Under normal conditions, this system has an intended function to safely and efficiently transport people and freight to their destinations. However, sometimes events or non-recurring circumstances, such as an accident or extreme weather, can affect the system's ability to effectively operate as intended. In fact, it is commonly purported that the majority of roadway congestion and travel delays are caused by these types of unexpected events.



Evaluation of Resiliency and Vulnerability



Resiliency is therefore defined as the transportation system's ability to adapt, manage and recover its functionality when its operations are disrupted. Proactively preparing, protecting and managing the system for disruptions can help alleviate the temporary impacts and return the system to normal operations more quickly, saving both time and costs. For the I-380 Corridor, resiliency is most relevant to unexpected lane closures due to weather or crashes.



Figure 15. FLOOD RISK LOCATIONS

Extreme weather events can have a disastrous impact on the region's highway system operations. The historic 2008 flood demonstrated these susceptibilities. Research of the region's historic climate data shows strong trends in increasing temperature, precipitation, streamflow and flooding throughout the I-380 Corridor. These trends are expected to continue into the future and could impact I-380 in various ways. In particular, these observed trends



indicate an increasing threat of future closures at four vulnerable flooding locations (see *Figure* **15**). To maintain reliable and safe travel, the existing roadway's flooding risks at these locations may need to be addressed. As some of the improvement strategies to improve I-380's resiliency could include infrastructure reconstruction, such as raising and lengthening existing bridge crossings, these improvements could be included within the Corridor's improvements.

Proactive planning and management of incidents are other means of improving the system's resiliency. In support of the I-80/I-380 Interchange traffic impact mitigation, the Iowa DOT is developing a Traffic Incident Management (TIM) Plan for the interchange site, Corridor and regional system – Package 3 of the TMP. These TIM strategies will improve the system's operations during the system interchange reconstruction and could additionally improve the system's resiliency in the long-term. TIM Plan strategies may include: 1/10 mile markers; additional "Highway Helper" signage; instant tow services; dedicated law enforcement support; designated emergency access locations; and ITS strategies, such as expanded staff in the Traffic Management Center, cameras, dynamic message signs, traffic sensors, and other traffic detection devices. Deploying these strategies in the short-term, in a manner consistent with the long-term vision for the Corridor, will provide long-term benefits to the system's overall reliability.

Improvement Objectives and Evaluation Measures

Based on study's goals and identified issues, the following objectives for the transportation improvements have been identified. These objectives provide a framework to evaluate the effectiveness of the various improvement options to fulfill the broader goals of the region's long-term plan.

- **Mobility** Improve the mobility within the system through improved travel times and efficiencies and expanded transportation options.
- Safety Improve travel safety through the reduced risk of crashes.
- **System Resiliency** Enhance the reliability of the system due to construction, weather and traffic related incidents.
- **Modernize** Provide a modern system accommodating future vehicle technologies.
- **Existing System** Maximize the use and preservation of existing infrastructure.
- **Economic Development** Support regional economic development through improved access and opportunity.
- Environmental Avoid and minimize impacts to environmental resources.
- **Implementation** Provide cost-effective improvements readily implementable which meet near-term needs within the long-term system framework.



2. SYSTEM IMPROVEMENT STRATEGIES

Integrated Corridor Management

Commuter travel within Iowa's Creative Corridor is currently served by a system of transportation facilities and services – highways, local roads, intercity transit services and trails. These facilities and services provide an interconnected network. Various modes of travel, and associated facilities, interact with each other to jointly serve the region's transportation needs. Each travel mode plays an important role.

To assess the overall system's ability to meet the future needs of the I-380 Corridor, a number of system-related improvement concepts, or strategies, were identified and evaluated. Each strategy was considered independently, at a conceptual level, as a possible stand-alone transportation solution. Features or elements of



Integrated Corridor Management includes a suite of congestion mitigation and improvement strategies to systematically address mobility.

the strategy that could benefit and improve travel along the Corridor were then identified for inclusion in the I-380 Vision.

ICM Strategies Evaluated

- Regional Alternate Routes
- Regional Trails
- Regional Travel Demand Management
- Multi-modal
 - Regional Express Bus (IRXB)
 - Regional Commuter Rail
- I-380 Corridor
 - o General Roadway Widening
 - Express Lanes
 - o Truck-only Lanes
 - o Traffic Management

Regional Alternate Routes Strategy

There are currently multiple highway routes which serve north-south travel within the region and connect the metro areas of Cedar Rapids and Iowa City. These other highways could provide alternate travel routes to I-380, thereby reducing its travel

When combined, these elements of each strategy provide an Integrated Corridor Management (ICM) solution for the region and the Corridor. ICM is an overall congestion management approach to optimize existing infrastructure and leverage all available capacities. With ICM, the I-380 Corridor is managed as a multi-modal system. By combining the individual elements of the various modal and management strategies that benefit the I-380 Corridor and its commuters, a more comprehensive and effective long-term solution is provided, meeting the diverse needs of the region.

Summary of Regional Alternate Routes Strategy Description Improve US 151, Highway 1 and/or Highway 965 in lieu of

I-380 improvements to relieve congestion and improve mobility along I-380 Corridor.

Evaluation

Alternate routes are too circuitous, out-of-direction and/or inefficient, adding significant additional travel time, for regular use by commuters between the metro areas.

Recommendation

Assess alternate routes as part of overall Corridor incident management plan.



demand and associated congestion. While I-380 is the most direct and provides the greatest capacity, other north-south highway routes within the Area of Influence include US 151 to the west and Highway 1 to the east. In addition, Highway 965 is located within the I-380 Corridor, crossing the Interstate just south of the Coralville Reservoir, and provides a connection between southwest Cedar Rapids and North Liberty. This local highway is an extension of 6th Street SW in Cedar Rapids and Ranshaw Way in North Liberty. Each of these alternate routes is a two-lane highway with limited access control. *Figure 16* highlights each of these alternate routes.



Figure 16. ALTERNATE ROUTES STRATEGY

The ability of each highway to provide a routine or regular alternative to I-380 for commuterrelated travel depends on several factors, including overall travel distance and travel time. Today, I-380 has the highest traffic volumes because it has the highest capacity, provides safer travel, is relatively more reliable and is the most direct. *Table 2* provides the distances and typical travel times, based on posted speed limits, for each route between downtown Cedar Rapids and Iowa City.

Travel	Highway Route Between Cedar Rapids and Iowa City			
Factor	US 151	I-380	Highway 965	Highway 1
Travel Distance (miles)	43	29	27	39
Travel Time (minutes)	60	35	43	49
Additional Travel Time	71%	NA	23%	40%

Table 2. ALTERNATE ROUTES TRAVEL DISTANCE AND TIME


As shown, I-380 provides the most direct route, reducing the overall travel distance by 10 and 14 miles compared to Highway 1 and US 151, respectively. Because of higher travel speeds and shorter distance, it saves between 14 and 25 minutes of travel time in comparison. While Highway 965 is shorter by around two miles, due to its connections to the respective local street systems, it adds around eight minutes to the overall travel time compared to I-380.

To be an attractive alternative to I-380 for regular commuting, each alternate route would need to provide similar or competitive service – connectivity, distance, safety, reliability, and most importantly, travel time. Relative to I-380, these alternate routes would add between 23 and 71 percent of travel time – a significant impact for regular travel route choices. Compared to I-380, US 151 and Highway 1 are more circuitous and less efficient, adding both travel distance and time, but do provide an alternate route for travel not directly originating from or destined to the immediate metro areas. In the case of Highway 965, while shorter, due to slower speeds and local streets, it cannot compete with the travel time of I-380. Improving one or all of these routes to provide similar service to I-380, such as adding lanes and upgrading the degree of access control, would be cost prohibitive and would not optimize the existing infrastructure along I-380. While it is not likely that these routes could provide alternatives to I-380 on a regular basis, these routes could be part of the region's incident management plan.

Regional Trails Strategy

In addition to recreational uses, trails, sidewalks and other bike/pedestrian facilities, especially in metro areas, provide commuters additional mobility options. While walking or bicycling to and from work is not a predominant regional mode of travel, these modes do meaningfully contribute to the overall transportation system. In combination with transit or

Summary of Regional Trails Strategy				
Description				
Construct or improve existing regional trails between Cedar				
Rapids and Iowa City to provide improved commuter options.				
Evaluation				
Due to distance, traveler preferences and other factors affecting commuter choice, regional trails would not provide a reasonable alternative and would not impact mobility along the I-380 Corridor.				
Recommendation				
Integrated with local interchange improvement considerations along the I-380 Corridor, coordinate with local agencies and partners for possible cross-corridor trail provisions and access at planned trail crossing locations.				

ridesharing services, non-motorized travel can provide the final link in a commuter's journey. These facilities play an especially important role within metropolitan areas. However, factors such as ease of access, distance, weather and traveler preferences, collectively affect how

travelers choose to utilize trails and bike/pedestrian facilities. For longer distance travel, these factors significantly limit their regional application for commuter use.

Currently, there are no trails directly connecting the Cedar Rapids and Iowa City metro areas. The American Discovery Trail, located east of the Coralville Reservoir, is a planned interregional trail system and is a priority for the local planning agencies. This trail, when completed, will connect the trail systems of the metro areas and will provide a continuous interregional trail.



In urban areas, pedestrian and bike facilities provide "first and final mile" connections from inter-modal facilities for regional commuters.



Given the distance between Cedar Rapids and Iowa City and the existing modal share of regional travel, it is not anticipated or envisioned that the planned American Discovery Trail or other new regional trails would provide an attractive and usable commuter option. While regional trails provide meaningful recreational value and improve the resident's quality of life, and are worthy priorities for the region, they would not be reasonable alternatives for regular regional commuter use. As a result, and given safety and access issues, a continuous regional trail along the I-380 right-of-way is not recommended.



The American Discovery Trail is a planned system of interconnecting regional trails across lowa.

The long range regional and local plans include a

network of future trails and connections which link and extend the metro area trail systems. While these plans do not envision a regional trail along I-380, nor is it recommended, there are several planned trail crossings of I-380 at local interchange locations – 120th Street, Penn Street and Forevergreen Road. Currently, there are no existing trails which cross the I-380 Corridor.

Due to access requirements for the Interstate, the I-380 right-of-way can be a barrier for future cross-corridor trails. Separation of grades and uses is required at trail crossing locations. Local interchange locations provide the necessary separation of grades, control of access and local trail connections for the siting of Interstate trail crossings. Therefore, as roadway and interchange improvements along the I-380 Corridor are evaluated and designed, for each of the

planned trail crossings, it is recommended that cross-corridor pedestrian access and facilities be considered. This would include coordination with

the local planning agencies and partners for the studies, engineering designs and funding.

Regional Travel Demand Management Strategy

The thought behind Travel Demand Management (TDM) is that driving is underpriced and its user costs do not cover its external costs to society. As a result, because it is underpriced, driving is over utilized. There are various ways, called TDM strategies, to better optimize the efficiencies of the transportation system. These either monetize the cost of driving, to encourage in part the use of alternative modes, or make alternatives more attractive by incentivizing them. These strategies are typically low-cost and do not require additional significant capital improvements or expenditures. (TDM strategies can be deployed along with alternative capital improvements to optimize their effectiveness.)

Summary of Regional Travel Demand Management Strategy Description

Implement road pricing, rideshare, telecommute or other employer-based strategies to reduce commuter-related travel demand.

Evaluation

Commuter travel between Cedar Rapids and Iowa City likely contributes to peak-hour traffic congestion along I-380. Low-cost TDM strategies could be cost-effective. While not a standalone mobility solution, these measures could be part of an ICM solution.

Recommendation

- Track and monitor the performances of the CorridorRides and IRXB (380 Express) pilot programs.
- Market and promote the pilot programs to maximize opportunities for success.
- Based on recorded successes, pursue expansion of programs through employer, business and community partnerships.
- Pursue and secure long-term local and regional funding for CorridorRides and IRXB.



The effectiveness of any TDM strategy is dependent on its application, setting, complementary strategies, the nature of the travel market and the level of emphasis on implementation and promotion. Unlike physical improvements, these strategies require some amount of education and outreach. There are several potential TDM strategies that could be applied to Iowa's Creative Corridor.

Strategies which monetize the cost of travel typically involve "road pricing". Examples include HOT (high-occupancy toll) lanes, toll roads, cordon pricing (drivers pay to enter a fixed area), regional parking fees and proposed approaches such as VMT (vehicle-miles travelled) charges. Road pricing has been implemented in various forms across the world, but remains controversial because of equity concerns, resistance to fees, sometimes limited alternative options and privacy concerns around fee collection methods. The pricing can be directed at all drivers, or in the case of HOT lanes and cordon tolls, only those who live or work in targeted areas. Distance-based fees or general tolls typically apply to all drivers, although rate structures can be different for user types (e.g., trucks versus passenger vehicles). The lowa DOT does not currently have the legal authorization for enacting road pricing strategies.

Strategies which incentivize travel demand management include ridesharing, telecommuting and transit fare reduction or offset measures, implemented as part of a regional transit service plan. Ridesharing programs are widely implemented and well accepted. It does not require any policy intervention, as many people are willing to share rides for convenience, cost savings or companionship. The recently implemented CorridorRides program is an example.

Similarly, telecommuting has become increasingly feasible and attractive across the country. Nearly one-third of vehicle miles driven in the U.S. are to and from work, making commuting the single largest trip purpose for vehicle miles traveled. Eliminating the need to travel to work directly reduces travel demand during the peak commuter periods. While the public sector has no way of regulating telecommuting, it can encourage employers to adopt policies to allow employees to work from home or some other location. For employers, federal policies promote tax incentives for such allowances. Increasingly, employees view the increased flexibility telecommuting offers as an important quality of life benefit.

Where transit services are a commuting option, such as with the IRXB pilot program, ridership fare incentives are one way to encourage transit usage, especially when market conditions result in low ridership. Federal law includes tax incentives that allow employers to reduce transit fares for employees. Transit agencies can also offer a variety of special programs to decrease fares. Agencies can also work with regional business cooperatives for employee-sponsored transit benefits. These partnerships are commonly a part of regional parking strategies when parking is a premium. Employer-based transit benefit strategies do require broad participation to be effective. More general fare incentives are directed at existing and potential transit riders regardless of trip destination.

Whereas road pricing strategies may be too aggressive, controversial and inappropriate for lowa's Creative Corridor, given the degree of regional congestion and lack of legal authorizations, TDM strategies which incentivize alternative travel would be worthwhile pursuits for the region. This is evidenced by the region's current CorridorRides and IXRB pilot initiatives. As part of their initial implementation, promotional and business community partnership efforts will help increase their successes. As pilot programs, long-term and sustained operations will



depend on their effectiveness and ability to secure more permanent funding. As these pilot programs advance and their performance is tracked and monitored, it is recommended that the local sponsoring agencies continue to explore partnerships with their respective business community and downtown-oriented employers and institutions within Cedar Rapids and Iowa City to promote the initiatives.

Multi-Modal System Strategies

Regional Express Bus

Subject to local priorities and long range funding, long-term Interregional Express Bus (IRXB) services could be provided for the I-380 Corridor. An initial pilot demonstration of these services is currently planned to begin in the fall of 2018. These initial services are being funded by the lowa DOT, in coordination with the regional and local planning agencies, with long-term operations and expansion of services to be determined based on local funding and administration, as local priorities allow.

Recommendations for IRXB services were developed by the Iowa Commuter Transportation Study (ICTS). These recommendations provided the basis for the pilot program. Per these recommendations, the Iowa DOT developed the following in support of the pilot program deployment and as precursors for potential longterm services:

• Initial Service Plan – Optional route, station location and operational plans were analyzed, including corresponding ridership estimates, to determine the initial IRXB service plan. Inlay operations within the existing intercity bus systems were evaluated and capital and operations cost estimates were developed. The initial service plan, to be

Summary of Regional Express Bus Strategy

Description Continue and expand the planned IRXB pilot services, scheduled to begin in the fall of 2018, beyond the demonstration period to provide longterm commuter options, improve overall mobility and reduce congestion along I-380.

Evaluation

Providing express bus services between Cedar Rapids and Iowa City with expanded services provides cost-effective mobility options and benefits for the region and the I-380 Corridor. Long-term IRXB services should be integral to and included in the I-380 Vision, depending on local funding and priorities.

Recommendation

- Monitor and track the IRXB pilot operations based on prescribed performance measures.
- In coordination with the I-380 Corridor Strategy:
 - Assess the feasibility of express lane improvements for improved IRXB operations.
 - Consider possible bus-on-shoulder (BOS) operational and design provisions as part of General Roadway Widening Strategy.
 - Coordinate future bus stop planning with interchange improvements at Wright Bros Blvd and Penn Street as part of the General Roadway Widening Strategy.
- Based on the performance of the pilot program, determine local mobility priorities and, accordingly, secure local funding and support for long-term IRXB operations beyond the demonstration period.

in operation by the fall of 2018, is a partial deployment of the long range recommendations from the ICTS.

• IRXB AVL/CAD System Integration – An initial plan was developed for the integration of the IRXB Automated Vehicle Location (AVL) and Computer Aided Dispatch (CAD) systems with the local agency systems currently in operation. These systems combine to aid in the management of the system's real-time operations. An integrated approach for



the IRXB facilitates the collection and dissemination of transit user information within the region and helps coordinate overall operations. This plan leverages existing systems, media and other public communications to make understandable information readily available to the public to optimize operations and promote IRXB usage.

- **IRXB Fare Collection Integration** An initial fare collection concept of operations was developed to integrate seamlessly with the existing systems of the current intercity service providers. Integrated fares will facilitate transfers between the interregional and intercity systems to improve convenience and promote IRXB ridership.
- Regional Transit District Analysis A long-term funding and organizational study was
 performed to identify and evaluate options for the sustained and expanded IRXB
 operations following the pilot program. This study determined that a formation of a
 regional transit district (RTD) would provide a viable funding and financing mechanism
 for the recommended long-term IRXB services, including public rideshare options. This
 study recommended that the RTD option be further explored and pursued.

The lowa DOT performed a potential ridership analysis of the initial IRXB plan. This analysis predicted the new service would capture around 360 to 430 total daily riders, or around three to four percent of the total commuter market between Cedar Rapids and Iowa City. As estimated in the ICTS, full build-out of the IRXB. including additional bus stops and 30-minute peak period service, would increase the projected daily ridership to around 560 riders. These services, both initially and in the future, depending on local funding and priorities, would reduce the peak-hour traffic along the I-380 Corridor and through the I-80/I-380 Interchange. While not a standalone solution for mobility along the I-380 Corridor, IRXB services in the long-term would provide additional commuter



The initial IRXB services include 30-minute weekday services between downtown Cedar Rapids and Iowa City with one bus stop along the I-380 Corridor, located at Kirkwood Community College.

options and benefit future travel conditions between Cedar Rapids and Iowa City.

The initial IRXB services will provide a measure of the effectiveness of interregional transit services to relieve congestion and improve mobility along the I-380 Corridor. As an initial offering, the pilot program does not fully provide the planned system build-out or expanse of services which could optimize the benefits of interregional transit services. In the future, expanded services could include weekend operations, more bus stops and more frequent services, based on usage and available funding. As recommended by the ICTS, additional improvements to maximize the system's benefits could include transit priority measures, such as exclusive lanes and signal prioritization. As a significant portion of the IRXB routing and several future planned bus stops are located along I-380, improvements to the I-380 Corridor could provide an opportunity to integrate these future expansion measures with the Vision.



The integration of future IRXB services within the I-380 Corridor Vision includes two possible elements – exclusive priority lane operations and future bus stops.

• I-380 Exclusive Priority Lanes – Providing priority lanes, or express lanes, for IRXB buses would provide improved and more reliable travel times, thereby likely increasing ridership and further relieving congestion. For the I-380 Corridor, priority lane considerations could include a new and permanent lane for limited and exclusive use, such as buses. Eligibility for the express lanes could be based on vehicle occupancy, including public buses, and toll customer election. Given the existing I-380 roadway configuration, constructing new express lanes would need to be integrated within the overall reconfiguration and reconstruction of I-380. Evaluation of exclusive priority lanes is included in the I-380 Corridor Express Lanes Strategy.

Another priority option is to use the Interstate shoulders during congested periods, such as during the commuter peak periods or during incidents. In other areas of the country, under prescribed circumstances and conditions, public buses routinely utilize peak-period shoulder lanes, or bus-on-shoulder (BOS), to maximize the use of the roadway infrastructure and provide priority transit services. This concept requires an operations plan; a review and assessment to ensure safe operations: sufficient outside shoulder width and pavement strength: and FHWA coordination and approval.



Becoming commonplace in urban areas, bus-on-shoulder operations utilize roadway shoulders during peak commuter periods or during incidents to improve transit reliability.

The lowa DOT performed a planning-level engineering and operational assessment of this option for the existing I-380 Corridor. This assessment determined that the existing shoulders do not meet the necessary width and strength requirements to support the BOS option and the travel time savings and benefits would not justify the cost to replace the existing shoulders. BOS operations are not currently planned at this time. However, provisions for future BOS operations should be considered as part of the reconstruction and widening strategies for the Corridor. This would include coordination with the FHWA and the IRXB operator (i.e., ECICOG) and the addition of design elements which incorporate, or at a minimum do not preclude, possible future BOS operations.

 Future Bus Stops – The long-term IRXB service plan includes two potential future bus stops within the I-380 Corridor – at the Wright Brothers Blvd interchange and at the Penn Street interchange. Improvements to the I-380 Corridor could provide an opportunity to integrate the planning for these future bus stops, and associated facilities, with the overall improvement plan. It is recommended that studies and assessments of local interchange improvements include bus stop access and siting considerations, and as appropriate, coordination with the ECICOG for integrated planning.



Regional Commuter Rail

Building on previous studies, an evaluation was performed in support of the Planning Study to assess the impacts and benefits of new alternative commuter services between Cedar Rapids and Iowa City using the existing CRANDIC rail line. This assessment evaluated the overall regional benefits of these services and their ability to improve traffic operations along the I-380 Corridor. Multiple guideway technologies were considered,

including commuter rail and automated bus transit, with various terminal locations and alternate route alignments combining the CRANDIC rail line and I-380. Conceptual capital and operations cost estimates and ridership projections were developed for each scenario. Based on this evaluation, it was concluded:

- I-380 Corridor Improvements Projections of ridership for alternative mode improvements are not sufficient to fully alleviate the need for additional roadway capacity along I-380. In the near term, direct capacity improvements to I-380 are needed to relieve traffic congestion and improve overall mobility. In the long-term, future alternative mode improvements would complement the direct I-380 roadway improvements as part of a broader and more comprehensive transportation network.
- Long-Term Alternative Mode Improvements – Providing future alternative commuter services, whether with commuter rail or automated bus transit, would further enhance the region's transportation system but would require sustained regional and local funding for the initial construction and ongoing operations. Based on the route options considered, it was determined that the existing CRANDIC rail line provides the most direct and cost efficient alignment for these potential services. Including a possible future alternative mode improvement within the I-380 Corridor would be cost prohibitive and is not recommended. Based on local priorities, additional study of this strategy would be needed

Summary of Regional Commuter Rail Strategy Description

Provide alternative mode improvements (commuter rail and/or automated bus transit) along the existing CRANDIC rail line.

Evaluation

Building and operating commuter rail or automated bus transit services along the existing CRANDIC rail line could be generally feasible in the long-term, but would not reduce the need to improve the I-380 Corridor. Regional and local funding would be required. Future modal improvements would depend on local priorities and should be preserved as a possible future option. These improvements, if implemented, would complement and supplement the I-380 Corridor Vision.

Recommendation

- Coordinate the I-380 crossing with the possible future repurposing of the CRANDIC rail line.
- Develop regional and local agency consensus on the long-term priority for regional commuter rail.
- Based on priorities, conduct the necessary additional studies and consider right-of-way preservation measures for possible future implementation.



Photo of typical CRANDIC railroad right-of-way.

to confirm the appropriate technology, terminal locations, stations, service plan and funding. Commuter improvements along the CRANDIC rail line, based on conceptual



Modes on I-380



ridership and cost projections, could generally be feasible in the long-term, if funding is identified. Measures to preserve this potential option for future use should be considered locally.

The study recommends, based on consensus of the long-term priority by regional and local agencies, to further advance the option through additional analysis and by preserving the CRANDIC right-of-way for possible future use. The existing CRANDIC right-of-way is located adjacent to and parallel with Highway 965 and crosses the I-380 Corridor, passing underneath the Interstate, just south of the Coralville Reservoir. To preserve this potential future option, it is recommended that improvements to I-380 be coordinated with the CRANDIC rail line to ensure the necessary space requirements for its potential reuse are considered.

I-380 Corridor Strategies

General Roadway Widening

This strategy would entail the overall reconstruction and widening of the existing I-380 Corridor roadway and improvements to the local interchanges. The new roadway section would include three or four general purpose travel lanes throughout the Corridor in each direction with full-width inside and outside shoulders. Full reconstruction would provide the opportunity to address existing design standard deficiencies, based on a modern 75 mph design, and would modernize the Corridor. Additionally, current vulnerabilities to changing weather trends could be addressed. Furthermore, as part of the ICM solution, planning and design coordination could be included to appropriately integrate other reasonable non-highway improvement strategies.

The overall configuration of the new roadway section, and the resulting median width, would depend on how the construction is staged. Two lanes of traffic in each direction would be maintained during construction. The desired new section would include an open depressed grass median. A closed median with a concrete median barrier is not recommended at this time due to the additional costs and median drainage issues. The intent would be to maintain the Corridor with a typical rural Interstate configuration. For areas where topographic, environmental, or infrastructure constraints exist, the median width

Summary of I-380 Corridor General Roadway Widening Strategy Description

Reconstruct and widen the existing I-380 roadway and bridges to provide a total of six or eight general purpose lanes and improve local interchanges.

Evaluation

Widening the existing I-380 roadway and improving local interchanges would directly improve the Corridor's traffic and safety operations. This is a reasonable improvement strategy and is included in the I-380 Corridor Vision.

Recommendation

- Evaluate the typical roadway widening design options and recommend a preferred alternative.
- Perform more detailed study of local interchange improvements.
- Assess the need or opportunity for future interchange locations.
- Identify locally constrained areas for more detailed study of non-typical widening and construction staging options.



Widening of the existing roadway would be staged to maintain the open grass median typical of rural Interstates.



may vary to reduce impacts. To reduce construction costs, to the extent possible, the existing roadbed would be reused and rebuilt. Depending on the available right-of-way and adjacent environmental resources and constraints, for typical conditions, the existing centerline alignment would be maintained with widening to both sides, or the new reconstructed centerline would shift to one side. Existing bridges and drainage structures would be widened, extended, or rebuilt accordingly. For non-typical areas, more detailed alternatives analysis would be required to determine the construction staging plan and roadway configuration.

The new roadway typical section and right-of-way will need to include the ability to expand and adapt to future changes. These changes include potentially adding additional lanes or repurposing available space for exclusive AV use, as these vehicles become more prominent within the Corridor. Design provisions for other non-highway improvements or traffic management measures, whether implemented initially or installed at some point in the future, should be considered. The timing of future adaptations or expansions will depend on traffic growth, the rate of AV adoption, and the operational effects of other non-highway improvements. Initially, providing a minimum of six lanes, including mainline widening through the I-380/US 30 Interchange, would provide a continuous six lane Interstate section between I-80 and downtown Cedar Rapids.

This strategy would include improvements at the three local interchanges – Wright Brothers Boulevard, 120th Street, and Penn Street – and planning for possible new local interchanges in the future. Construction of a new interchange at Forevergreen Road is currently underway – started in September 2017. At each existing interchange, engineering and traffic operations studies are needed to determine the best interchange improvement, including possible new interchange configurations.

Reconstructing and widening existing I-380 and improving the local interchanges would directly improve the traffic operations and safety within the Corridor. Analysis of existing and projected peak-hour traffic shows a need to widen the existing roadway to maintain acceptable operations into the future. As local traffic continues to grow, improvements at the local interchanges are also needed.

Express Lanes

This improvement concept is similar to the General Roadway Widening Strategy, but would entail adding lanes for exclusive and limited use. With this strategy, the additional lanes, either one or two lanes in each direction, would be express lanes reserved for high-occupant vehicles, such as carpools, vanpools and public buses which meet the occupancy eligibility requirement, and tolled vehicles which elect to use the lanes. Ineligible traffic would travel within the two adjacent general purpose lanes. In total, the new roadway section would entail six to eight

Summary of I-380 Corridor Express Lanes Strategy
Description
Reconstruct and widen the existing I-380 roadway and
bridges with express lanes, to provide a total of six or eight
lanes, and improve local interchanges within the Corridor.
Evaluation
Based on the extent and duration of projected peak-period
traffic congestion and travel times, widening the existing
I-380 roadway with express lanes would not be a cost-
effective, efficient or reasonable mobility solution. The State
of lowa does not currently have the authority for tolled
express lanes.
Recommendation
This strategy is not recommended.



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lanes, depending on traffic operational requirements, with full-width inside and outside shoulders. With the full reconstruction of the existing roadway, peak-period use of the inside shoulder was not considered for this concept. Furthermore, given the existing travel patterns which peak in both directions in both the AM and PM periods, a reversible lane configuration would not be appropriate. Construction of this strategy would be similar to the General Roadway Widening Strategy, including local interchange improvements.

The express lanes would need to extend through the Corridor, beginning just north of I-80 and ending just south of US 30 - a



The Express Lane Concept would provide a continuous express lane(s) adjacent to the general lanes and separated by a buffer.

distance of roughly 16 miles. An option could include the extension of the express lanes to downtown Cedar Rapids, but this would require converting existing lanes, repurposing the existing inside shoulder during peak-periods, or express lanes widening north of US 30. Located adjacent to the general lanes with a buffer, access would be provided through slip ramps strategically located along the Corridor. Tolls would be collected for non-eligible vehicles using electronic toll collection technologies based on an overall concept of toll operations. It is assumed the express lanes would operate 24-hours a day, seven days a week.

Express lanes directly provide premium and reliable service to commuters. Toll pricing is strategically preset or actively managed through variable rates to ensure reliable service and to maintain travel speeds within an acceptable limit. During high congestion periods, higher toll rates would limit the toll election to manage the traffic flow. With the addition of express lanes, the general lanes would typically experience improved travel speeds due to the diversion of traffic – the overall travel speeds within the Corridor would improve. This concept has the added



Electronic toll collection technologies, such as toll-tag transponders and video, would collect tolls for non-eligible express lane vehicles.

benefit of generating toll revenue which could offset some of the improvement's construction and/or operations costs.

The concept of express lanes is becoming a common congestion management solution in urban areas across the country. Its application and effectiveness in providing mobility benefits, in addition to generating funding, depends to a great extent on the corridor's vehicle occupancy, travel and congestion characteristics. For generally low vehicle occupancy travel corridors like I-380, there needs to be sufficient enough peak-period congestion to provide meaningful travel time benefits to incentivize travelers to elect the tolled express lanes, and thereby utilize the available capacity. The I-380 Corridor does not have sufficient high-occupant vehicle (HOV)



demand, including the IRXB services, to justify an HOV-only lane. To be cost effective and efficiently utilize the express lane's added capacity, the congestion needs to be of a sufficient magnitude and duration to provide measurable travel time savings.

The analysis of current peak-period travel times and speeds in the I-380 Corridor, as described in Chapter I – Goals and Objectives, determined that current congestion does not measurably reduce travel speeds. Some attenuation of speeds is noted in some locations within the Corridor during the PM peak period. However, these reductions are localized and are limited to two or three miles-per-hour. Current congestion does not significantly impact overall travel times. While the peak-period operations are reaching or exceeding the operational goal (LOS B), thereby resulting in congestion and restricted lane maneuverability, overall travel times are not adversely affected. In the future, as traffic grows and congestion worsens, it can be expected that travel delays will become more noticeable. However, current and projected near-term congestion are not sufficient to justify an express lane – there is insufficient travel time incentive to warrant an exclusive lane. Given the current operations, the express lane would be underutilized or would not generate enough toll revenue to justify the toll operational costs.

In addition to its ineffectiveness in improving mobility within the Corridor, there are other challenges with the express lanes concept. While current federal regulations permit the addition of express lanes along an existing Interstate, as long as the existing lanes are maintained, the State of Iowa does not currently have legal authorization for tolling. Enabling state legislation and authorization would need to be obtained.

Truck-Only Lanes

Interstate and highway truck traffic volumes and patterns within the region reflect the important role the Corridor serves in distributing goods to and from the Cedar Rapids metro area. Daily truck volumes along I-380 are notably higher south of the metro area due to its southerly terminus and connection with I-80. Current daily traffic volumes show that trucks comprise around 16 percent of traffic along the I-380 Corridor. While not a relatively high percentage compared to other high volume truck corridors, it is likely that trucks do contribute, to some limited extent, to the

Summary of I-380 Corridor Truck-Only Lanes Strategy
Description
Widen the existing I-380 roadway and bridges with truck-
only lanes, in addition to the existing two general purpose
lanes in each direction, and improve local interchanges
within the Corridor.
Evaluation
Based on current truck traffic volumes, the commuter-
oriented congestion and the lack of truck system
connectivity, this concept would not solve the Corridor's
mobility issues and would not be a reasonable solution.
Recommendation
This strategy is not recommended.

Corridor's current peak-period congestion. To address the congestion, the Truck-Only Lanes Strategy would provide new exclusive lanes for trucks, likely within the median, in addition to the current general purpose lanes. The truck-only lanes would extend through the Corridor, from US 30 to I-80.



For high truck volume corridors of significant length and/or concentrated travel patterns, this concept's aim is to separate truck and auto travel with exclusive truck lanes to improve overall mobility. To be cost-effective, sufficient truck volumes are needed to justify the exclusive lanes. Exclusive facilities for long haul distances can provide additional benefits through heavier load limits, truck train allowances and AV operations – thereby significantly increasing the system's efficiency and incentivizing the use of the exclusive lanes. For the I-380 Corridor, given its relative short distance, the source of congestion being



Rendering illustrating the truck-only concept along a rural Interstate corridor (FHWA).

commuter-related, its relatively low truck volumes and the lack of an interregional system connection, truck-only lanes would not be an effective and reasonable strategy for the I-380 Corridor.

Traffic Management

Active Traffic Management (ATM) is a strategy that uses real-time operational data and Intelligent Transportation Systems (ITS) to convey information to motorists to improve the roadway system's overall traffic and safety performance. Using traffic speed sensors and cameras managed through an operations center, ATM uses variable message signs to inform motorists of expected travel times and incidents. Real-time information helps motorists make well-informed travel route decisions and provides advance warning for congestion caused by incidents, thereby improving the overall system's efficiency and safety performance.

Summary of I-380 Corridor Traffic Management				
Strategy				
Description				
Implement smart technologies, called Managed Motorway, to				
manage the traffic flow and maximize the available roadway				
capacity during commuter periods.				
Evaluation				
Based on the extent and duration of current and near-term				
projected peak-period traffic congestion and the relative ease of				
roadway widening, this concept would not be a viable mobility				
solution at this time. However, it could be considered in the				
future. This concept would introduce new, nonstandard motor				
vehicle operational rules and would require FHWA approval.				
Recommendation				
Perform additional study of the concept for possible future				
application.				
Consider provisions for future possible applications in the				
design of the general roadway widening.				

Within many urban highway corridors across the world, ATM strategies have advanced to include additional measures to better address congestion and travel reliability by maximizing the available capacity of the roadway. This new concept, called Managed Motorways, uses ATM strategies combined with integrated traffic flow management to improve corridor throughput and travel safety. Managed Motorways utilizes a suite of smart technologies to optimize the performance of the highway and maximize its existing capacity during peak periods. It is a cost-effective management strategy typically deployed in lieu of roadway widening, especially when prohibited due to tight constraints and high construction costs and impacts. The Managed



Motorways concept has been adopted within the United Kingdom on multiple corridors and is currently being deployed in the United States.

Traffic flow is typically measured by Level-of-Service (LOS). LOS is generally defined by six primary categories based on vehicle densities, operational speeds, stability of the traffic flow, maneuverability and driver comfort. LOS A reflects free flow while LOS F reflects breakdown of operations, in descending quality of service. LOS B is the operational goal for the I-380 Corridor. As travel degrades, moving from LOS A to LOS F, the traffic flow is more susceptible to interruptions and breakdowns. It is at LOS E or worse that the Managed Motorways concept is most effective – when the travel conditions are most sensitive to disruptions. This concept is based on the goal of



The Managed Motorways concept manages the traffic flow to reduce the risk of breakdown due to surges and other disruptions of steady-state flow.

maintaining steady-state or uniform traffic flow to maximize the capacity of the roadway. This is accomplished by managing the mainline traffic flow and the flow of traffic entering the highway at key congestion points (i.e., interchange on-ramps). Normalizing the traffic flow helps delay the onset of congestion, reduces stop-start travel and reduces the risk of flow disruptions.

Incorporating ATM strategies, the goals of the Managed Motorway concept include:

- Improve safety, throughput and travel speed by reducing the risk of flow breakdown.
- Improve travel time reliability by reducing variability from day to day.
- Provide real-time information to inform motorists of traffic conditions.
- Manage traffic during incidents with lane use and speed controls.
- Manage vehicle speed and speed differentials during periods of congestion or queuing.
- Integrate with arterial road operations to optimize the overall road network.

There are four primary functional elements of a Managed Motorway system: Intelligence, Control, Information and Roadway. The Intelligence and Information elements include ATM strategies to monitor traffic and convey information to motorists. Unique to Managed Motorways is the Control function which includes variable speed limit signage and control and lane use management - the ability to close lanes for incident management or open lanes for the temporary use of hard-running shoulders. Ramp meters within the corridor are interconnected to coordinate the flow of on-ramp traffic simultaneously throughout the corridor. Unique Roadway elements include hardened shoulders for temporary use during congested periods, elongated ramps to provide vehicle storage and queuing for ramp meter signals, and



Managed Motorways, a common strategy in the United Kingdom, utilizes traffic flow controls and peak-period shoulder operations to maximize throughput and safety.



emergency refuge areas for disabled vehicles needed when the hard shoulders are in operation. Motorist compliance with the variable speed and lane control is essential to the successful operations, thus enforcement is a critical component.

1	Intelligence	Control	Information	Roadway
	 Vehicle Detection 	Coordinated Ramp	Advance Travel Info	 Hard-running
	Cameras	Meters	Roadway Conditions	Shoulders
	 Travel Monitoring 	Variable Speed Limits	Variable Message	 On-ramp Geometry
	 Incident Detection 	Lane Use	Signs	Emergency refuge
	Weather Monitoring	Management	AV Communications	areas

Post application research, documented by the Transportation Research Board (TRB) and the Intelligent Transport Systems (ITS) United Kingdom, has demonstrated the benefits of Managed Motorways. While unique to the specific corridors researched, the findings illustrate the general benefits of the concept.

Through assessments of operational performance, this concept has been shown to:

- Reduce injury crashes by 56%.
- Increase throughput during hard-running shoulder operations by an average of 7% to 9%.
- Improve travel times by up to 16%.
- Reduce variability of travel times (i.e., increase reliability) by 22% to 27%.
- Decrease the occurrence of severe congestion.

The Managed Motorway concept can be an effective



Signals located on on-ramps are interconnected and meter the traffic flow based on mainline congestion throughout the system.

mobility solution, as part of an overall ICM Strategy, to maximize the efficiency of an urban roadway corridor. Under the right circumstances, as a roadway is reaching its capacity and widening is infeasible, this concept can be a cost-effective means of optimizing the system's performance and service. While in practice in other parts of the world, and currently being introduced to the United States in tightly constrained and congested urban corridors, this concept introduces new and progressive traffic control schemes, atypical to today's I-380 Corridor motorist. In part, this concept relies on new operational policies, such as the temporary use of shoulders and variable speed limits, which would require new administrative authorization, rules and FHWA approval.

Given the current amount and near-term projection of congestion along I-380 and the relative reasonableness of widening, this concept would not be a viable solution for the Corridor in the near future. However, for long-term potential application, additional study of the concept is recommended. Additional study should consider the future potential application, in addition to widening needed in the near-term, and identify what provisions should be considered in the design for future integration and compatibility. In the future, initial components of the concept, short of the full concept deployment, such as ramp metering, could be considered.



3. ENVIRONMENTAL RESOURCES

Impact Evaluation Methodology

Implementation of the I-380 Vision will entail more detailed engineering design and environmental studies to further define and detail the Vision and secure

the necessary National Environmental Policy Act (NEPA) and permit approvals. These NEPA studies will more definitively identify the existing

environmental resources potentially impacted, including field surveys and investigations. Design details for the Vision would be developed to avoid, minimize and mitigate any potential impacts.

Pursuant with the Planning Study's guiding principles, improvement objectives and evaluation measures, as presented in Chapter 1 – Goals and Objectives, an assessment of the existing known environmental resources within the Study Corridor was performed. The recommended I-380 Vision includes elements of multiple improvement strategies, per the ICM solution. While these strategies include regional applications, the infrastructure improvements potentially impacting the natural and manmade environments are primarily located within the Study Corridor limits.

Using currently available databases, existing environmental resources located within the Study Corridor were identified and documented in the *Existing Conditions and Operations* technical memorandum. These databases include GIS data available from the Iowa DOT, Iowa Department of Natural Resources (DNR), Johnson County, U.S. Fish and Wildlife Service, and Federal Emergence Management Agency (FEMA). These sources were used to identify natural and social environmental resources located within the Study Corridor. Based on these findings, an assessment of potential impacts to these identified resources by the recommended improvements was performed.

Environmental Impact Considerations

Table 3 presents the known environmental resources within the I-380 Study Corridor and considerations of likely action items for each resource. This list contains what is known currently and it should be noted that other resources could be discovered as the subsequent NEPA analysis is done. This list is based on previously recorded and known environmental resources and provides a conceptual, high-level analysis of the Vision's likely impacts. As part of the current NEPA studies, field studies would be performed to confirm and locate environmental resources potentially impacted. As field studies are completed and as the Vision's design is further developed, potential impacts would be reevaluated and could change from this conceptual assessment.



Existing Conditions



Table 3. SUMMARY OF I-380 CORRIDOR ENVIRONMENTAL FEATURES

Resources Identified	Data Source	Considerations	
Floodplains*	FEMA	 100-year and 500-year floodplain associated with the Iowa River and other streams. Any roadway widening improvement would impact the 100-year floodplain at the Iowa River. Potential minor impact to 500-year floodplain. Coordinate with Iowa DNR. 	
Regulated Materials*	lowa DNR, EPA	 Conduct Phase 1 Environmental Site Assessment. Capacity improvements not likely to impact known hazardous materials sites. During preliminary design, more detailed analysis would confirm location of potential specific impacts. 	
lowa River*, Other Streams	lowa DOT Stream Data	 Existing crossing of the Iowa River. Examine practicable alternatives to minimize wetland and water quality impacts at the crossing. Coordinate with U.S. Army Corps of Engineers (USACE) and Iowa DNR. Obtain permits from USACE, where applicable. 	
Farmland	lowa DOT Imagery, USDA	 Determine farmland acreage impacted. Examine alternatives to minimize impacts to agricultural land. Complete NRCS-CPA-106 form for farmland converted to non-farm use. 	
Threatened and Endangered Species	USFWS, Iowa DNR	 Conduct habitat and species survey, as needed. Prepare full impact and biological assessment. Coordinate with U.S. Fish and Wildife Service (USFWS) and Iowa DNR. Enter into Section 7 consultation, if needed. 	
Woodlands	Iowa DNR, Johnson Co	 Many wooded areas adjacent to I-380, primarily north of the Iowa River crossing. Determine woodland areas of over 2 acres that would be impacted. Analyze alternatives to minimize impacts to forested areas. Develop mitigation, as required. 	
Parks, Wildlife Management Areas, and Trails (Section 4(f) Resources)*	lowa DOT Imagery Service and Trail Data, Iowa DNR, Johnson Co	 Map parks, wildlife management areas, and trails (such as Coralville Reservoir and Hawkeye Wildlife Management Area); determine if any impacts. Identify feasible and prudent avoidance alternatives, if necessary. Determine Section 4(f) requirements. Coordinate with FHWA to finalize Section 4(f) evaluation, as required. 	



Resources Identified	Data Source	Considerations	
Wetlands*	USFWS, Iowa DOT Wetlands Data	 Many wetlands associated with the lowa River. Wetlands located throughout the corridor. Analyze alternatives to avoid and/or minimize impacts. Obtain permits from USACE, as appropriate. Develop mitigation, as warranted. 	
Cultural Resources	lowa DOT Cultural Resources Data	 Conduct a field survey. Obtain agreement from Iowa State Historic Preservation Office (SHPO) on the Area of Potential Effects. Determine effects and submit to SHPO for concurrence. If adverse effects, work with SHPO to resolve mitigation through a Memorandum of Agreement. Perform Section 106 consultation. 	

*For more information see *Existing Conditions and Operations* technical memorandum.

Environmental Impacts Summary

The PEL Study process entails the consideration of potential impacts to environmental resources, in addition to other factors, in the development of the improvement recommendation. Known environmental resources within the Study Corridor were identified and assessed for potential impacts by the Vision. The improvement recommendation, generally entailing I-380 roadway widening and interchange improvements, plus other regional measures, could entail additional right-of-way, especially in and around the interchange areas.



The I-380 lowa River crossing includes several environmental constraints that must be accounted for with the planned improvements.

During the NEPA process, to the extent reasonably possible, more detail engineering studies and designs would be performed to avoid impacts and additional right-of-way requirements. In addition to environmental impacts, other considerations affecting the design could include maintenance of traffic, construction costs, and long-term roadway expandability. In general, the I-380 roadway would be widened utilizing a typical configuration and staging approach (to be determined in the NEPA studies based on a balancing of the evaluation factors). In more tightly constrained areas, as necessary, the typical widening approach could be modified to avoid and/or minimize impacts to adjacent environmental resources. One area where a non-typical approach may be needed is in the vicinity of the Iowa River. The I-380 crossings over the Iowa River, Highway 965 and the CRANDIC railroad present the greatest challenge to adding capacity and rebuilding I-380. Any replacement of these structures would need to follow the existing alignment and stay within right-of-way to avoid or minimize impacts to the Coralville Reservoir, Additionally, there are constructability and temporary traffic control issues to consider - any replacement of these structures would have to maintain two lanes of traffic in each direction during each stage of construction. For constrained areas such as the Iowa River, refinements to the typical section could be implemented, as necessary, to avoid and minimize unreasonable impacts to adjacent resources.



4. IMPROVEMENT STRATEGY RECOMMENDATIONS

Improvement Strategy Evaluation and Screening

The overall improvement recommendation is a combination of individual strategies that complement each other and provide a wide range of mobility options and solutions for the I-380 Corridor and region. Each improvement strategy was evaluated on its ability to reasonably fulfill the Study's goals. For those strategies that didn't effectively fulfill the goals, reasonable elements of the individual strategies worthy of inclusion within the Vision were identified. Individual strategies identified as unreasonable were eliminated from further consideration. While strategies excluded were determined unreasonable at this time, future changes in regional travel, funding and/or regional priorities could affect their viability in the future. These strategies should continue to be studied and assessed in the future, as appropriate.

Table 4 provides a summary evaluation of the improvement strategies based on the regional improvement objectives. Each was rated on a scale of good (green light), fair (yellow light) and poor (red light). The Vision recommendations were based on the overall preponderance of these evaluations. A summary of each evaluation factor is as follows:

- **Mobility** Strategies that would directly improve the travel speeds by reducing delays were rated the highest. A poor rating was given to those strategies that would not measurably improve the traffic operations along the I-380 Corridor.
- **Safety** Those strategies that would improve travel safety by reducing the risk of crashes, either by directly improving the driving environment or by improving the traffic flow, were rated the highest. Strategies that reduce the overall travel demand could reduce the number of crashes, but generally not the risk of crashes.
- **System Resiliency** Improvement strategies that would directly provide the opportunity to raise or lengthen the susceptible waterway crossings along I-380, thereby reducing the risk of service disruptions due to weather, were rated higher.
- **Modernize** Modernizing the I-380 Corridor generally necessitates the reconstruction of the existing infrastructure. Those strategies that would do so were rated the highest.
- **Existing System** Those strategies that maximize the use of existing infrastructure, such as the existing I-380 right-of-way, the CRANDIC rail line or other existing infrastructure, where rated the highest.
- **Environmental** Strategies that reduce the physical expansion of the transportation system would be less likely to impact environmental resources. Low impact strategies were rated the highest.
- **Implementation** The ability to be implemented in stages while incrementally providing travel benefits, in addition to being affordable, are important attributes. Those strategies with these qualities were rated the highest.



Table 4. STRATEGY SUMMARY EVALUATION AND RECOMMENDATIONS

Strategy		Study Goal Evaluation					Recommendation					
		Mobility	Safety	System Resiliency	Modernize	Existing System	Economic Development	Environment	Implement	Reasonable	Include in Vision	Eliminate
	egional ate Routes											x
Regional Trails												x
	nal Demand nagement										х	
Multi- modal System	Express Bus										х	
Mu mo Sys:	Commuter Rail											x
ب ب	General Widening									x		
corrido	Express Lanes											х
I-380 Corridor	Truck-Only Lanes											x
<u> </u>	Traffic Management										x	

The I-380 Vision – General Widening With ICM Strategies

General Description

As the underlying base strategy, the I-380 Vision entails the general widening, reconstruction, and modernization of the existing I-380 roadway, bridges, and local interchanges between US 30 and Forevergreen Road, which is currently being constructed as part of the I-80/I-380 Interchange Project. This strategy best fulfills the overall improvement goals and provides a foundation for incorporating other strategies for an overall comprehensive solution that meets the region's long-term travel growth and mobility needs. Included in the recommendation are elements of other improvement strategies to provide an overall Integrated Corridor Management (ICM) solution. ICM strategies include Regional Demand Management, Express Bus, and Traffic Management. Combined, these improvements will reduce and better manage traffic flow along I-380, which complement the reinvestment in the existing I-380 infrastructure.

Table 5 and *Figure 17* provide a summary of the I-380 Vision recommendations.



Table 5. THE I-380 VISION RECOMMENDATIONS

Vision		Strategy	Existing	Major Elements and Features			
٤	Strategy	Description Commitment		in Vision			
Base Strategy	General Widening	Reconstruct, widen and modernize the I-380 roadway and bridges, improve the existing local interchanges, and implement technology to manage incidents.	The Iowa DOT will reconstruct and improve the I-80/I-380 Interchange, including a new I-380/Forevergreen Road Interchange and six-lane widening of I-380 to the south. Implement the TMP to mitigate and manage the traffic and operational impacts of the project during construction.	 Typical Section – Reconstruct with new modern rural Interstate. Number of Lanes – Widen to six or eight lanes with expandability. Alignment – Existing alignment with upgrades for deficiencies. Safety – Improve ramp operations at existing truck rest area. Sensitive Areas – Evaluate typical section refinements around the Iowa River crossing. Local Interchanges – Improve Wright Brothers Blvd., 120th Street and Penn Street. 			
	Regional Demand Mgmt.	Implement rideshare, telecommute or other employer- based strategies to reduce commuter- related travel demand.	In partnership with the lowa DOT's statewide ridesharing program and local agencies, ECICOG will implement the CorridorRides pilot program to promote and encourage carpooling and vanpooling within the region during the I-80/I- 380 Interchange project.	 Track and monitor the performance of the CorridorRides pilot program. Market and promote CorridorRides to maximize opportunities for success. Based on recorded successes, pursue expansion of program through employer, business, and community partnerships. Pursue and secure long-term local and regional funding for CorridorRides. Coordinate planning for a potential park and ride lot near Penn St. Interchange. 			
ICM Strategies	Express Bus	Expand the planned IRXB pilot services (called 380 Express) beyond the demonstration period to provide long- term regional commuter options.	As a pilot program, ECICOG will provide IRXB services between Cedar Rapids and Iowa City during the duration of the I-80/I-380 Interchange construction. This pilot program is sponsored by the Iowa DOT and Iocal transit agencies with administrative oversight and operations provided by ECICOG.	 Track and monitor the performance of the IRXB (380 Express) pilot operations. Based on performance, determine local mobility priorities and, accordingly, secure local funding and support for long-term IRXB operations. Evaluate BOS operational and design provisions as part of I-380 roadway widening and reconstruction design. Coordinate future bus stop planning with interchange improvements at Wright Brothers Blvd. and Penn Street. 			
	Traffic Mgmt.	Implement ATM measures with integrated traffic flow management to improve corridor throughput and travel safety.	As part of the I-80/I-380 Interchange project TMP, design and implement ATM improvements along I-380 and within the region, including ITS- related infrastructure and incident management.	 Perform additional study of the Managed Motorways concept for possible future application. Consider provisions for future possible applications in the design of the I-380 widening and reconstruction. 			



Figure 17. THE I-380 VISION FEATURES





Integrated Corridor Management (ICM) Strategies

be tracked and monitored against identified performance measures. Engagement with the

funding for the continuation of the program.

local business communities is recommended to promote the program and identify partnership opportunities. Upon the conclusion of the pilot period, the Iowa DOT will work with the local partners in their pursuit of long-term sustained

In addition to the base strategy to widen, modernize and reconstruct the I-380 roadway and bridge infrastructure, the I-380 Vision recommendation includes a series of regional and Corridor-specific improvement strategies. These strategies include:

 Regional Demand Management Strategy – The Iowa DOT and local partners are committed to implementing the CorridorRides rideshare pilot program. During the course of the program, it is recommended the performance of the pilot
 IOWA RIDESHARE save • share • get there

https://www.iowarideshare.org/Public/Home.aspx



https://www.corridorrides.com

- **Regional Express Bus Strategy** The lowa DOT and local partners are committed to providing Interregional Express Bus Services (IRXB) (called 380 Express) as a pilot program during the construction of the I-80/I-380 Interchange Project. Operations are expected to begin in October 2018 and will extend through the construction period. During the course of the pilot program, it is recommended that the IRXB's performance be tracked against pre-defined measures to evaluate its effectiveness, such as ridership. On or before the conclusion of the pilot period, the lowa DOT will work with the local partners, and based on local priorities, assist in the pursuit of long-term sustained funding for the continuation of the services. As appropriate, expansion of the services, per the full build-out recommendations of the Iowa Commuter Transportation Study (ICTS), should be studied further and implemented accordingly, based on available funding. Considerations for the future potential expansion of the IRXB should be given in the planning and design of the I-380 widening and reconstruction, including: coordinated planning and siting of bus stops and associated facilities at the Wright Brothers Blvd. and Penn Street Interchanges and the evaluation of BOS operations and the necessary supporting design provisions, such as wide full-depth roadway shoulders.
- Traffic Management In coordination with the planning and design of the I-380 roadway widening and reconstruction, it is recommended that the Iowa DOT study and evaluate the future potential application of traffic management strategies to complement the roadway capacity improvements and extend the Corridor's operational service life. Long-term Active Traffic Management (ATM) strategies potentially impacting the I-380 design, which could include the typical section, on-ramp configurations and communications infrastructure. As appropriate, coordination of future ATM measures should be considered in the roadway widening design.



Features of the I-380 Vision

The I-380 Vision includes the following roadway-related features:

 Design Standards/Criteria – The I-380 roadway and bridges will be designed using lowa DOT design criteria and standards for a 75 mph design speed, as shown in *Table* 6.

Table 6. I-380 ROADWAY GEOMETRY AND SECTION DESIGN CRITERIA

Design Element	Preferred	Acceptable
Design Speed	75 mph	70 mph
Max Super Elevation	6%	8%
Lane Width	12 feet	12 feet
Outside Shoulder	12 feet	12 feet
Inside Shoulder	6 feet	4 feet
Median Width	tbd	36 feet
Cross-Slope (min.)	2%	1.50%
Cross-Slope (max.)	3%	3%
Existing Bridge Shoulder Width (min.)	3.5-foot shoulders	3.5-foot shoulders

- **Typical Section** Further study and evaluation will be performed in the roadway design to determine the roadway typical section, as illustrated in *Figure 18*, based on the following goals:
 - Provide three or four travel lanes in each direction, initially and ultimately, considering the future impacts of AV operations, ATM strategies and need for future expandability.
 - Provide a rural Interstate section with a divided and depressed grass median.
 - Maintain two lanes of traffic during construction in each direction.
 - Reuse the existing road bed and base, to the extent practicable.
 - Minimize construction costs while reducing additional right-of-way requirements and environmental impacts.



Figure 18. THE I-380 TYPICAL ROADWAY SECTION



- **Alignment** The new and improved roadway centerline will generally follow the existing centerline alignment, per the standard offset in the typical section, if any, and will address the following existing alignment deficiencies:
 - There are four locations near the Highway 965 crossing, near the Coralville Reservoir, north of 120th St. and near 76th Avenue – where horizontal curve radii do not meet acceptable or preferred criteria.
 - Two mainline locations at the bridges over US 6 and Highway 965 do not meet the current preferred vertical curve criteria for the design speed. (The US 6 bridges are currently under design as part of the I-80/I-380 Interchange Project.)
- Constrained Areas In the vicinity of the Coralville Reservoir, as part of the NEPA planning studies, design alternatives will be developed and analyzed to consider adjustments to the typical section, including an urban section with a closed median and concrete barrier, to eliminate and/or reduce environmental impacts and the need for additional right-of-way.
- Local Interchanges As part of the NEPA planning studies, the department will study and analyze improvements, including potential alternative interchange reconfigurations and layouts, at the following interchange locations: Wright Bothers Boulevard, 120th Street and Penn Street. Potential future interchanges should be located based on a minimum spacing of one mile. Interchange studies at 120th Street and Penn Street, and the design for Forevergreen Road (currently under construction), should include planning coordination with local agencies for cross-Interstate trail access, design and/or future provisions, based on local funding and priorities.
- Rest Area The existing Cedar Rapids Rest Area, located at MP 12.5, will be maintained and improved per the recommendations of the Iowa Rest Area Management Plan, Implementation Plan, June 2018. The NB rest area is identified as one of the top ten highest ranked rest areas for future investment. Further analysis should be performed and design modifications considered at the rest area off-ramps and on-ramps to address recorded safety issues at these locations. As appropriate, these modifications could be integrated with the I-380 roadway widening improvements.
- **Park and Ride Lots** In coordination with local partners, maintain the existing park and ride lot at 66th Ave SW in Linn County, located in the Kirkwood Community College Campus. Based on available funding and statewide priorities, consider new park and ride facilities per the Iowa in Motion Iowa Park and Ride System Plan, 2014, including candidate locations near the I-380/Penn Street Interchange and Eastern Iowa Airport. Coordinate the planning of the potential park and ride facilities with the study and design of the interchange improvements.
- **CRANDIC Commuter Rail Crossing** Coordinate the design of the I-380 roadway crossing over the existing CRANDIC rail line with the potential future repurposing of the rail line for regional commuter rail.



• Climate Vulnerability Areas – As part of the engineering design for the I-380 roadway widening, perform risk analysis at the four identified high-risk flood locations due to changing weather trends and incorporate findings in the roadway design.

Public Involvement

Public Involvement Plan

At the outset of the Planning Study, the Public Involvement Plan was developed to identify opportunities to inform the public of the planning study and to provide ideas and comments regarding the development of the I-380 Vision. This plan was captured in a technical memorandum to guide

the public involvement process for the study. The purpose of the public involvement process was to inform and raise awareness of the study, generate interest from the general public and stakeholders, and solicit feedback for consideration during the planning process and into the development of the future project. This plan is available on the study's website. In addition, pursuant with the PEL study process, throughout the Planning Study multiple meetings were held with the FHWA to coordinate the study's process, findings and recommendations.

Online Information

Online information was made available during the study to effectively reach and engage the general public potentially interested in and affected by the study. A project website was created and updated throughout the study to display information for consistent public messaging and study communications.

On the project website are a series of technical memorandum that make up the analysis for the Planning Study. These memos focus on a different topic or issue related to I-380. Also included is a study area map, project schedule, links to the online public meetings, a place to subscribe to project updates, and an area for comments.

Public Meetings

Two online public meetings were held during the course of the study. A third in-person meeting was held near the conclusion of the study, corresponding with the release of the study's final report (see *Appendix B – Public Comments on the I-380 Planning Study* for a record of the inperson meeting). Each meeting is posted on the project website, including videos and opportunities for participants to provide comment. Announcements for the meetings were provided through the study email distribution, newspaper advertising and other media releases. *Table 7* provides a summary of the study's public meetings, including the meeting logistics and topics presented.



Public Involvement Plan



The study website allows residents and other interested parties to participate in the study process and offer comments.



Stakeholders Meetings

Over the course of the study, several specific stakeholder meetings were held with interested parties and agencies. These meetings were conducted to review and discuss particular issues and topics relevant to the study and its findings. These events provided all parties the opportunity for open discussion and input regarding the study's proceedings.

Table 7. SUMMARY OF PUBLIC MEETINGS

Public Meeting	Topics
Meeting 1 Available June 19, 2017	 Introduction to the Planning Study and website Description of the public involvement process Summary of the Study's Guiding Principles Impacts and considerations of emerging automated vehicles
Meeting 2 Available March 22, 2018	 Analysis of existing traffic, safety and pavement conditions Analysis of alternative modes of travel Analysis of weather-related issues
Meeting 3 In person October 23, 2018	 Vision for Infrastructure Investment Report Next steps and recommendations

Public Feedback

Numerous comments have been received through the project website since its initiation. Public comments received to date are included in *Appendix B – Public Comments on the I-380 Planning Study*.

The I-380 Vision Implementation Plan

The I-380 Vision provides an overall framework for the advancement of the operational and capital improvements for the region and Corridor. While the advancement of the roadway and ICM improvements are to be coordinated, each is dependent upon available funding and the relative priorities of the respective sponsoring agencies. Continued coordination of the planning and design of the various elements of the Vision will help ensure near-term projects are developed consistent with future, longer term improvements for an integrated multi-modal transportation system. For each element of the Vision, as funding and priorities are identified, the implementation process entails more detailed planning, including NEPA

I-380 Vision Future NEPA Analyses Preferred Design Alternative

- Typical Roadway Section Determine the best initial and ultimate configurations based on construction costs, maintenance of traffic, right-of-way, and future expandability considering future AV operations and potential ATM measures.
- Constrained (Non-typical) Roadway Section – Determine refinements to reduce right-of-way (if any) and impacts to adjacent environmental resources in the Coralville Reservoir area.
- Local Interchange Improvements Perform interchange improvement alternatives analyses including consideration of ICM provisions and construction phasing for Wright Brothers Blvd., 120th Street and Penn Street.
- Climate Vulnerability Areas Conduct risk analyses at each identified high-risk flooding location.



studies as appropriate; engineering design, including right-of-way acquisition; construction, including procurement and bidding; and finally, operations. The details of the development processes for each unique and independent element of the Vision will depend upon the standard procedures of the sponsoring agency. *Figure 19* provides an illustration of the I-380 Vision Implementation Plan showing the relative sequencing and timing of the Vision's key elements.



Figure 19. THE I-380 VISION IMPLEMENTATION PLAN

As shown, highlights of the Implementation Plan for the I-380 Corridor include:

• NEPA Study and Preliminary Design – In accordance with Iowa DOT's location study and NEPA requirements, an environmental study and preliminary design will be completed for the I-380 roadway widening improvements. This study and corresponding design will extend from the northern end of the I-80/I-380 Interchange Project, located near the I-380/Forevergreen Road Interchange, to the I-380/US 30 Interchange – a distance of around 14 miles. Based on the traffic characteristics, known environmental resources adjacent to the right-of-way, and the generally uniform and independent utility of I-380 within these limits, it is recommended that the proposed NEPA action coincide with these termini and that the study be performed as a Categorical Exclusion. This recommendation needs to be coordinated with the FHWA Iowa Division. The NEPA study should include opportunities for engagement and coordination with the public and other stakeholders, including public information meetings for the public to provide input into the study's proceedings. In coordination with the NEPA study, the Iowa DOT will study the potential application of ATM improvements and the impacts to the roadway design.



Final Design, Right-of-way Acquisition and Construction – The approval of the NEPA study authorizes the Iowa DOT to move forward with design and construction using federal funds. The phasing of the design and construction will be based on available funding. Completion of the full project, from Forevergreen Road to US 30, would be necessary to realize the full travel and safety benefits of the improvements. While timing of the improvements depends on funding availability and the relative priorities of the department, traffic analyses indicate that capacity improvements are currently needed throughout the Corridor based on the LOS objectives. Based on available funding, interchange improvements could potentially be postponed and/or phased based on local traffic growth and operations. The potential phasing of interchange improvements will be studied further in the NEPA study. Following the completion of the roadway improvements, the Iowa DOT will continue to monitor and assess the impacts of AV operations, and depending on the outcomes of the NEPA study and the ATM study, the possible future expansion of the roadway and/or implementation of ATM measures.

In parallel with the Iowa DOT's advancement of the roadway planning, design and construction, and in close coordination with the department, the local and regional agencies will further advance the implementation of the ICM strategies. Based on the recorded performance of the pilot carpooling and regional express bus programs, the agencies will assess local and regional priorities to identify and secure funding for continued and potentially expanded program operations. Potential expansion of the IRXB services could include more detailed study, facility siting and design, procurement and construction for expanded bus station facilities and operations.

Outstanding Issues

The I-380 Planning Study was conducted in accordance with the FHWA Planning Environmental Linkages (PEL) requirements. Through an assessment of the Corridor's travel characteristics, regional improvement strategies, potential impacts to the environment, and public input, a recommended overall improvement concept and scope have been identified – The I-380 Vision. While the Vision provides an overall plan for improving travel within the region, which will be streamlined into the subsequent planning and NEPA studies for the Vision's implementation, there are many outstanding design details that will need to be determined in the follow-up planning studies and design development. These outstanding issues include:

 Near-term and Long-term I-380 Roadway Improvements – Additional study and analysis is needed, as part of the NEPA Study and supporting preliminary engineering design, to determine the most cost-effective roadway section configuration to meet the near-term operational and safety needs while being compatible with long-term capacity and expansion needs. The near-term roadway improvements need to provide a foundation or template to serve the Corridor for future decades. Potential issues affecting this analysis include available space, maintenance of traffic during construction, future lane expansions for increased capacity, repurposing of shoulders for travel lanes for general and/or AV use, and potentially peak-period running shoulder operations, depending on the ATM study findings. This analysis could impact the pavement design details for long-term compatibility. The NEPA study, and associated right-of-way, should assess the ultimate, long-term roadway configuration.



- Impacts of AV Operations Along I-380 Over time, as AVs become more common, AV technologies will have a dramatic impact on the volume of traffic, the traffic capacity and the safety performance along the I-380 roadway. Future implications of this transition to a high AV utilization could include adjusting the roadway configuration to maximize the Corridor's capacity and safety. Due to technology advancements, AVs require less space than conventional vehicles. This could significantly defer the need for conventional lane expansions in the future. With this in mind, the lowa DOT will continue to assess the AV operational impacts and benefits in the future and will develop and deliver future roadway improvements accordingly.
- I-380 Environmental Impacts Preliminary engineering and NEPA studies will identify the existing manmade and natural environmental resources potentially impacted by the I-380 roadway widening and reconstruction. Environmental field surveys will be performed. In accordance with department's location study and NEPA requirements and state and federal environmental regulations and procedures, preliminary engineering designs will avoid and minimize impacts to known resources to the extent reasonably possible. Unavoidable impacts will be mitigated in coordination with the appropriate approving resource agencies and adopted department procedures.
- I-380 Metropolitan Areas Coordination In the future, as the near-term I-380 improvements are constructed and traffic along the Corridor continues to grow, complementary improvements to I-380 north of and including the I-380/US 30 Interchange and parallel routes within Cedar Rapids will need to be assessed and planned accordingly. Similarly, Iowa City's roadway system connecting and serving commuter-related traffic coming from or destined to the I-380 Corridor may need to be assessed. These future studies and potential improvements will be coordinated with the respective planning agencies and partners within the metropolitan areas and will depend on available funding and priorities across the State.

5. RESOURCES

Corridor Metropolitan Planning Organization, "Connections 2040 Smarter Transportation, Better Community, the Corridor MPO's 2040 Long Range Transportation Plan," Adopted July 30, 2015, Amended 2017.

East Central Iowa Council of Governments, "Comprehensive Regional Development Strategy 2040," November 2016.

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Planning and Environmental Linkages Study Questionnarie

This questionnaire should be used as a guide for transportation planners at the beginning of a Planning and Environmental Linkages (PEL) study. The intent of this questionnaire is to provide some basic questions to document what you're going to do, why you're going to do it, and how you will document decisions within the study.

1. Background

a. Who is the study sponsor?

Study sponsors include the Iowa DOT and FHWA Iowa Division.

b. What is the name of the PEL study document and what routes will be covered?

The Interstate 380 Planning Study (PEL) is a long-term, system wide study of the I-380 Corridor between Cedar Rapids and Iowa City. This study addressed system-related improvements to I-380, including the consideration of parallel north-south routes that interact with I-380. These routes include US 151, Hwy 965 and Iowa 1.

c. Who will be included on the study team (include name, title, organization name, and contact information)? Will the study include an advisory or steering committee?

The I-380 Planning Study was overseen and coordinated by the Iowa DOT Office of Location and Environment (OLE). The study was coordinated with the FHWA Iowa Division. During the course of the study, briefings were provided to the Iowa DOT Executive Leadership Team and the Iowa Transportation Commission. The Study Team included:

- Tammy Nicholson Iowa DOT OLE Director ٠ Tamara.Nicholson@iowadot.us Brad Hofer Iowa DOT OLE Transportation Engineer Administrator Brad.Hofer@iowadot.us Iowa DOT OLE Study Manager Gary Harris Gary.harris@iowadot.us FHWA lowa Mike LaPietra Mike.LaPietra@dot.gov FHWA lowa Sean Litteral Sean.Litteral@dot.gov
- d. What will be the study area? Include a map of the study with a description of the modes of travel, functional classification, number of lanes, shoulder width, median width, access control, and type of surrounding environment (urban vs. rural, residential vs. commercial). Identify major cities, counties, and lowa DOT District offices on the map.



The I-380 Corridor limits are generally defined to encompass the existing transportation network between Cedar Rapids and Iowa City. As I-380 is the primary component of this system, the I-380 Corridor is centered along I-380, and generally extends to US 151 to the west and lowa 1 to the east. This broader study corridor definition allows a system-wide assessment of all travel modes and highways that serve travel on and interact with I-380. Multimodal system improvements that interact with I-380 were

assessed by the Study. I-380 is generally defined as a four-lane divided full access controlled Interstate highway.

e. Have there been previous planning studies that have been conducted for this highway or interstate? Include a brief chronology; including the years the studies were completed and who completed the studies.

The I-380 Planning Study is the first comprehensive planning study of I-380 in eastern Iowa.

f. Are there recent, current, or near future planning studies or project in the vicinity? Describe the relationship of this project with the other studies/projects.

lowa DOT has an Automated Vehicle Technology Project for I-380 Corridor which has been ongoing for several years. Also lowa DOT is currently reconstructing the I-80/I-380 Interchange near lowa City. This is a five year program of projects with construction scheduled to begin in the fall of 2018. In association with the interchange project, a Transportation Management Plan is being undertaken to mitigate traffic impacts during construction.

2. Methodology

a. What is scope of the PEL study and the reason for completing it?

I-380 is the primary connection between two major lowa population centers: Cedar Rapids and lowa City. Iowa's Creative Corridor continues to grow and is putting demands on its transportation system of which I-380 is integral. The interstate is showing signs of being over capacity. Therefore a long-term comprehensive strategic transportation plan is needed to: Serve future commuter-related travel between the Cedar Rapids and Iowa City metro areas; support Iowa's Creative Corridor long-term growth and enable near-term improvements; integrate commuting options between the metro areas; incorporate local metro area transportation plans; adapt to future mobility changes and vehicle technologies; and support regional economic development,

land use and environmental protection. The scope of the Study included assessing the Study's goals and objectives, identifying and evaluating system-level improvement strategies, identifying the best overall improvement strategy (i.e., The I-380 Vision) based on transportation and environmental resource impacts, and defining a long-term improvement plan. This overall process included coordination and engagement with key stakeholders and the general public.

b. Will NEPA-like language be used in the study?

Yes, the system-level evaluation and recommended improvement strategy decision-making were based on NEPA-like processes and language. The Study's planning activities and analyses included: travel characteristics and demands; economic development, land use and population; natural and manmade environmental resources; and public involvement and coordination. Furthermore, at the outset, the Iowa DOT developed overall principles to guide the study process. This guidance was developed to align the study with the broader statewide objectives and provide consistency in the study process.

c. What actual NEPA terms will be used in the study?

The construct of the Study's evaluation process was based on NEPA decision-making principles and terminology. As a system-level planning evaluation, these principles were applied at a systems-planning level. The range of improvement strategies evaluated included: General Roadway Widening; Truck-Only Lanes Widening; Express Lanes; Regional Alternate Routes; Traffic Management; Regional Trails; and Multi-Modal Improvements. NEPA terminology was utilized in the strategy evaluations and recommended improvement strategy, and is evident in the I-380 Planning Study report, entitled Vision for Infrastructure Investment. The findings of the Study included NEPA-related activities (utilizing NEPA terms) to be performed in subsequent engineering and environmental studies. Areas of further study identified for the I-380 Vision included:

Design Alternatives:

• Alignment

- Typical Widening Areas and Configuration
- Localized Non-typical Areas
 - Vertical grade and curve improvements
 - Horizontal curve improvements
 - Constrained areas due to manmade and environmental resources
 - Climate resiliency area improvements (risk analysis)
- Interchanges/Drainage Structures
 - Interchange improvements
 - Drainage structures widened, extended or rebuilt
- Rest Area Improvements

Analyses:

- Roadway alternatives analysis (as necessary)
- Preliminary roadway/bridge design
- NEPA evaluation and documentation
- d. How will these terms be used in NEPA documents?

The I-380 Vision defines the general concept and scope, including associated features, for reinvesting in the I-380 Corridor and sets the stage for the subsequent engineering design and environmental studies. These subsequent studies will reference the Planning Study to validate the widening strategy and avoid unnecessary evaluation of system-related alternatives. These

studies will be performed to further define and detail the Vision and secure the necessary National Environmental Policy Act (NEPA) and permit approvals. Specific NEPA terminology from the Planning Study to be advanced in the NEPA studies includes:

- **Goals and Objectives** The Planning Study provides a framework for the NEPA projectspecific Purpose and Need Statements. Elements include mobility, measured by traffic level-of-service; safety, measured by number and severity of traffic crashes; maintenance, measured by the service condition of the pavement and bridges; modernization, defined by a new design standard and typical section; adaptability for emerging Automated Vehicle technologies, defined by the roadway typical section; and adaptability for climate risk vulnerabilities in the existing infrastructure.
- **Recommended Improvement Strategy –** Design features for the Vision are identified to be analyzed further and conceptually designed in the subsequent NEPA studies.
- Evaluation of Recommended Improvement Strategy (i.e., The I-380 Vision) Using NEPA terminology, existing and known environmental resources located in proximity to the existing I-380 alignment and potentially impacted were noted by the Planning Study. This process provides an initial understanding of the affected environment, identifies areas where critical resources occur that could be impacted by the widening strategy, and thus where additional analyses may be necessary in the subsequent NEPA studies.
- Implementation Plan As part of the Vision's Implementation Plan, the Study provides NEPA-termed guidance for the determination of subsequent project limits, scope and document type for the NEPA engineering and environmental studies.
- e. What will be the key steps and coordination points in the PEL decision making process? Include a schedule of the development of the study showing coordination points with FHWA and other resource/regulatory agencies.

Coordination with FHWA lowa Division was provided at the following points: the Study's initiation, system-level evaluation of strategies and identification of the recommended strategy, and the final report. The Planning Study process is presented in the following chart:



f. How will the PEL information be presented for NEPA documents?

The Planning Study will be referenced in the upfront and introductory sections of the NEPA documents to define the planning context and validate the proposed action. The Planning Study's findings will help frame the scope, limits and type of NEPA document for each project.

3. Agency coordination

a. What will be the coordination efforts with Federal, tribal, state and local environmental, regulatory and resource agencies? What will be their level of participation and how will you coordinate with them?

Coordination with agencies entails the review and comment of the Study's Draft Report. The Draft Report will be submitted to review agencies through the Iowa DOT's standard NEPA circulation list. Comments on the Draft Report will be documented and addressed in the Study's Final Report.

b. What other transportation agencies will you coordinate with during the development of the study?

Coordination of the Study's Draft Report, including review and comment, will include the transportation agencies located along the I-380 Corridor.

c. What steps will you take with each agency during NEPA scoping?

NEPA scoping will be performed pursuant to the Iowa DOT's standard communication and engagement processes. The findings of the I-380 Planning Study will provide the basis for initiating the NEPA scoping processes as the department implements the I-380 Vision.

d. Will there be partnering agreements in place with this study?

No partnering agreements are anticipated for the I-380 Planning Study.

Appendix A

4. Public coordination

a. What will be the involvement process with the public and stakeholders?

The public and stakeholder engagement process for the I-380 Planning Study was documented at the outset of the Study, entitled I-380 Planning Study Public Involvement Plan, and is available on the Study website. The execution of this plan is documented in the Planning Study report. Elements of the Study's involvement process include:

- Study website
- Comments through the website
- Public opinion questionnaire, available through the website
- Media releases, email and social media announcing study events
- Individual stakeholder debriefings
- Public information meetings
- Publication and announcement of Study technical memorandums on website

5. Purpose and Need for PEL study

- a. What is the scope of the PEL study and reason for completing it? (mark all the apply)
 - ✓ Stakeholder identification
 - ✓ Stakeholder roles/responsibilities definition
 - ✓ Travel study area definition
 - ✓ Performance measures development
 - Development of purpose and needs goals and other objectives
 - ✓ Alternative evaluation and screening

- ✓ Alternative travel modes definition
- ✓ Scheduling of infrastructure improvements over short-, mid-, and long-range time frames
- ✓ Environmental impacts
- Mitigation identification
- Don't know
- □ Other

Comments:

b. What are the corridor visions and transportation goals and objectives to realize that vision? Will the vision and goals be used to develop a project level purpose and needs?

The intent of the PEL Study is to define the Vision for the I-380 Corridor. The I-380 Vision, as documented in the Planning Study, entails the full reinvestment in the existing I-380 infrastructure with a new and improved roadway section. The Vision, and the Corridor's goals and objectives which provide the basis for the Vision's formation, will provide the basis for the subsequent project-specific NEPA studies and the purpose and needs for the projects' proposed action.

c. What steps will be taken during the development of the PEL to develop a purpose and need for the NEPA process.

The Planning Study provides a Corridor goals and objectives framework, upon which subsequent NEPA study purpose and need statements will be developed. This framework was developed based on the traffic, safety and operational performance of the Corridor's existing infrastructure, including the Corridor's role in the region's economy and mobility.
d. Will logical termini be identified? How will the termini be identified?

The logical termini of the Planning Study are based on the extent of the I-380 infrastructure between the Cedar Rapids and Iowa City metropolitan areas.

6. Range of alternatives

a. What types of alternatives will the study look at? Will technical memos be developed for each alternative?

The following system-level improvement strategies were identified and evaluated by the Planning Study:

System Strategy	Evaluation Reference Material – Source and Title		
Automated Corridors	Automated Vehicles and Emerging Technology TM		
Resiliency	Evaluation of I-380 Resiliency and Vulnerability		
Modal Improvements	Impacts of Alternative Modes on I-380 TM		

b. What will be the screening criteria and process?

The screening criteria for the improvement strategies were based on the Corridor's goals and objectives, as follows:

- **Mobility** Improve the mobility within the system through improved travel times and efficiencies and expanded transportation options.
- Safety Improve travel safety through the reduced risk of crashes.
- **System Resiliency** Enhance the reliability of the system due to construction, weather and traffic related incidents.
- Modernize Provide a modern system accommodating future vehicle technologies.
- Existing System Maximize the use and preservation of existing infrastructure.
- **Economic Development** Support regional economic development through improved access and opportunity.
- Environmental Avoid and minimize impacts to environmental resources.
- **Implementation** Provide cost-effective improvements readily implementable which meet near-term needs within the long-term system framework.
- c. Will a summary be written for alternatives screened out?

Yes. Chapter 2 and Chapter 4 of the Planning Study Report describe the system-level strategies, their effectiveness of fulfilling the Corridor's goals and objectives, and which elements of the strategies should be included as part of the I-380 Vision.

d. Will a summary be written for alternatives developed for inclusion in the NEPA process?

Yes. Chapter 4 of the Planning Study Report provides a summary description of the Vision and its design features, including the follow-up studies and alternatives analyses to be performed with the NEPA process.

e. Will a documentation of the public, stakeholders, and agency comment process be included in the study?

Yes. Chapter 4 of the Planning Study Report provides a summary of the public, stakeholder and agency coordination process. All public comments are included in Appendix B.

f. Will there be a list of unresolved issues with the public, stakeholders, and/or agencies included in the study?

Yes. Chapter 4 provides the Vision Implementation Plan, including Next Steps and Outstanding Issues.

7. Planning assumptions and analytical methods

a. What will be the forecast year used in the PEL study?

The forecast year for the operational analysis was 2040. The economics analysis was based on time period 2018-2050.

b. What method will be used for forecasting traffic volumes? Coordinate with Office of Systems Planning.

Traffic forecasts were developed using the Office of Systems Planning iTRAM statewide traffic model.

c. Will the planning assumptions and corridor vision/purpose and statement be consistent with each other?

Yes. The evaluation of the fulfillment of the Corridor's goals and objectives were based on performance measures derived from the Study's planning assumptions.

d. What will be the future year policy and/or data assumptions used in the transportation planning process related to land use, economic development, transportation costs, and network expansions?

The transportation planning process was based on the assumptions inherent to the iTRAM statewide model, including land use, economic development and population forecasts adopted by the Office of Systems Planning. Transportation system network expansions included the committed projects contained in the State's STIP.

8. Environmental resources (wetland, cultural, etc.). For each resource provide the following:

a. What will be the level of detail for each resource review and what will be the method?

To characterize the likelihood and extent of potential impacts to environmental resources and provide initial guidance for the subsequent NEPA studies, a high-level assessment of many known environmental resources within the Study Corridor was performed to support the Planning Study's recommendations. Chapter 3 of the Planning Study Report summarizes the environmental resource noted for further study.

- b. Which resources will be reviewed within the study area? (mark all that apply)
 - ✓ Water resources

✓ Cultural resources

Regulated materials

- □ Air quality/Traffic noise
- □ Noise quality

✓ Parks, etc.

 \checkmark

✓ Threatened and endangered
 ✓ Other species

c. Will resource issues be identified in the study, including impacts and potential mitigation requirements?

Yes, resource issues will be noted at a high level for subsequent alternatives analysis to avoid the critical resources. Mitigation requirements were characterized for each studied resource, to be studied further in subsequent NEPA.

d. Will the study include a strategy to supplement the data during the NEPA process?

Yes. The Study identifies and characterizes the necessary steps to be performed in NEPA to identify resources, and avoid, minimize and mitigate impacts.

e. Which environmental resources will the study not review? Will those resources be reviewed in the NEPA process?

The I-380 Planning Study did not assess the following environmental resources, which will be assessed in the NEPA process:

- Floodplains
- Unique Landforms
- Woodlands
- Businesses
- Residences
- Noise Impacts
- Farmland
- Cumulative Impacts
- f. Will cumulative impacts be quantified in the study?

The corridor-wide potential impacts to known environmental resources were not quantified by the Study. However, a high-level assessment of the ability to avoid critical resources was performed.

g. Will mitigation strategies be discussed in the study?

Yes. Mitigation steps are generally characterized for each of the studies resources.

h. What will be done to link the information from the study to the NEPA process? Will the PEL study and material be available to the agencies and public during the NEPA process?

The findings of the Planning Study will be linked to the subsequent NEPA studies by reference and provide the basis for defining the NEPA proposed actions, range of alternatives, purpose and need, and limits of study. The Planning Study will be available for coordination with the NEPA studies.

i. Will issues be identified in the study for the future projects?

The Planning Study Report identifies the outstanding issues to be addressed by the subsequent NEPA studies.



Public comments on the I-380 Planning Study

Record of In-Person Public Meeting

Meeting Summary

An in-person public information meeting was held on October 23, 2018 at the North Liberty Recreation Center. The timing of the meeting coincided with the release of the draft final study report, entitled The I-380 Vision for Infrastructure Investment. The draft report was released on the study website (www.iowadot.gov/I380planningStudy) in advance of the meeting. This in-person meeting was the third meeting in a series of study meetings – the two previous meetings were conducted as on-line meetings available on the study website.

The public information meeting was conducted as an open house. A formal presentation was not provided. During the open house, department staff were available to answer questions and discuss the study's findings. Informational handouts were available for the public. A series of display boards were presented for public viewing and discussion. A comment table was provided for receiving public comments. Comments could be submitted by hand or online. A comment deadline of November 13, 2018 was communicated at the meeting.

In general, verbal comments provided by the attendees indicated overall support for the I-380 Vision and implementation plan. Discussions with the participants generally confirmed the study's findings regarding the need for the improvements.

Meeting Announcement

Announcements and advertising for the in-person public meeting were published using the department's standard procedures. In addition, the meeting was announced on the study website. An example meeting poster is included in the following pages.

Study Display Boards

Multiple display boards were presented at the open house public meeting. The display boards are included in the following pages.



The lowa Department of Transportation will hold a public information meeting Tuesday, October 23, to discuss the Interstate 380 Planning Study and gather public feedback on the technical reports, including the final report, Vision for Infrastructure Investment. The reports and previous online meetings are available to view online at: www.iowadot.gov/I380PlanningStudy.

All interested persons are invited to attend this meeting anytime between 5 and 6:30 p.m. at the North Liberty Recreation Center, 520 W. Cherry Street, in North Liberty.

The meeting will be conducted utilizing an open forum format. Iowa DOT staff will be present to informally discuss the planning study. No formal presentation will be made. If you are not able to attend this meeting, information and materials will be available online at the project website (shown above).

The meeting space is accessible for persons with disabilities. However, if you require special accommodations at the meeting, please notify the lowa DOT contact listed below by October 19.

To submit a comment online about this project, go to: https://bit.ly/lowadot906882.





I-380 Planning Study Public Information Meeting

October 23, 2018 5:00 to 6:30 pm

Open Forum Format

(No Formal Presentation)

Please check-in at the registration table



THE I-380 PLANNING STUDY YOU ARE HERE Goals and **Guiding Principles** 3 1 System valuatio Syste itrate Initiate Study Vision 1 2 3 4 5 6 Z GOALS PUBLIC Project Website - Document Release, Email and Corridor Mapping INVOLVEMENT 🕅 Define public Evaluate existing and Identify and evaluate transportation system Define planned transportation system operations and performance engagement plan, study goals and evaluation recommended Vision and identify ? ANALYSIS improvement strategies near-term priorities measures · Viability of Modal Public Existing Conditions and Vision for Involvement Plan Infrastructure Operations Options ø Automated Vehicles and PRODUCTS Investment Goals and Guiding Emerging Technology Resiliancy and Vulnerability Principles Planning study of the I-380 Corridor between 1 Goal 1 - Foster Public Engagement Cedar Rapids and Iowa City to identify near-term and long-term transportation improvements. 2 Goal 2 - Identify Goals and Guiding Principles 3 (Goal 3 – Define Existing Conditions Goal 4 - Examine Future Vehicle f Technologies -100 3 5(Goal 5 - Evaluate Infrastructure Vulnerabilities . 6 (Goal 6 – Assess Alternative Modes ŀ · · · · of Transportation 7 Goal 7 - Develop a Vision for 200 Infrastructure Investment IOWADOT GETTING YOU THERE 3000 INTERSTATE 380 PLANNING AND

ENVIRONMENTAL LINKAGES (PEL) STUDY

PUBLIC INVOLVEMENT AND COORDINATION



Meeting 1: June 19, 2017 (Available Online) Study introduction, need for study, strategies to be considered, and how to stay involved

Meeting 2: March 22, 2018 (Available Online)

YOU ARE HERE

Analysis of existing conditions, alternative transportation modes, and weather-related vulnerabilities

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Study website:

- General information about the study.
- Maps of the study area.
- Multiple technical reports on important study topics.
- Two on-line public meeting videos.
- The final study report Vision for Infrastructure Investment.

Meeting 3: Study recommendations October 23, 2018 and implementation plan





The I-80/I-380 Interchange Project: www.iowadot.gov/i80-i380

Regional Non-Highway Improvements: www.corridorrides.com www.380express.com



INTERSTATE 380 PLANNING AND ENVIRONMENTAL LINKAGES (PEL) STUDY

I-380 EXISTING CONDITIONS



Mobility and Safety



Safety Issue: High crash areas around the Cedar Rapids Rest Area exit and entry ramps.

Economic Development and Environment

Economic Development – Local interchanges with safe and efficient access promote economic development.



Environmental Resources -

Protect and preserve important environmental resources.

Wright Brothers Blvd.

- 120th Street
- O Penn Street
- Forevergreen Road

Modern and Resilient



Rebuild the roadway to meet modern design standards.





INTERSTATE 380 PLANNING AND ENVIRONMENTAL LINKAGES (PEL) STUDY

I-380 VISION FOR INFRASTRUCTURE INVESTMENT

1



Features of the Vision

- · Alignment Upgrade to modern standard
- Local Interchanges Improve and reconfigure as needed
- Cedar Rapids Rest Area Maintain and enhance facilities and improve safety at entry and exit ramps
- Park and Ride Lots Consider a new lot at Penn Street
- Constrained Areas Reduce and avoid environmental impacts around the Coralville Reservoir



- CRANDIC Railroad Crossing Coordinate
 with future potential repurposing of rail line
- Climate Vulnerability Areas Perform analyses at high-risk areas
- Technology Monitor and manage traffic with user information and message signs





INTERSTATE 380 PLANNING AND ENVIRONMENTAL LINKAGES (PEL) STUDY

THE I-380 VISION: PLAN FOR FUTURE

PREPARING NOW FOR THE POTENTIAL FUTURE

Now is the time to prepare for the future. The I-380 Vision includes several considerations to accommodate future changes as they occur. In coordination with local agencies and funding, it provides flexibility to prepare the corridor now for the possibilities, and uncertainties, of tomorrow.



Expandable Roadway and Bridges – Space for widening, if needed, without additional right-of-way

Regional Trail Crossings – Coordinate potential trail crossings and access at 120th Street, Penn Street, and Forevergreen Road

Sustained Ridesharing Program (Corridorrides) – Coordinate potential park and ride lot near Penn Street

Expanded Interregional Express Bus (380 Express) – Coordinate potential new bus stops at Wright Brothers Blvd. and Penn Street, and evaluate bus-on-shoulder operations along I-380.



Preserving the Commuter Transportation Option – With local funding, while not a substitute for widening I-380, commuter transportation along the existing CRANDIC rail line could be feasible in the future. The rail right-of-way should be preserved for possible future repurposing.



Active Traffic Management – In coordination with the I-380 widening, additional study will be performed to assess and include strategies for future active traffic management measures, such as variable speed controls, and others.



INTERSTATE 380 PLANNING AND ENVIRONMENTAL LINKAGES (PEL) STUDY

IMPLEMENTING THE I-380 VISION

Vision for -2 Infrastructure Investment

NOW	PREPARE	FUTURE POTENTIAL
Rebuild and improve the I-80/I-380 Interchange	Plan, design and build the I-380 widening with: Plant Roadway expandability Improvement of local interchanges Coordinated modal planning at interchanges Preservation of the potential reuse of the CRANDIC rail line at I-380	Trail crossings at 120th Street, Penn Street and Forevergreen Road interchanges
Implement ComidorRides regional carpool and vanpool pilot program during reconstruction project	Assess and monitor the success of the pilot program	Sustained long-term regional carpool and vanpool program Park and ride lot near the Penn Street interchange
Implement 380 Express bus service pilot program during reconstruction project	Assess and monitor the success of the pilot program	Sustained long-term and expanded regional express bus services Bus stops at Wright Brothers Bivd, and Penn Street Interchanges
Provide active traffic management, such as incident management, during reconstruction project	Study I-380 design strategies for future possible active traffic management, such as traffic flow control devices, and others	Shoulder-running peak-period bus operations along I-380 Traffic management devices such as variable speed controls, if and when needed

	YEARS	10	20	40
General Roadway improvements Iowa DOT	1-380 Ca	H80 / H380 Interchange Reconstru H80 / H380 Interchange Transports unidor - Environmental Study and Prefi unidor - Active Traffic Management (AT ity Funding H380 Corridor - Final Design	tion Management Program iminary Design	AV Technology Project Implementation and Operations
Gen			1-380 Carridor - Construction	Evaluate AV Operations, ATM Measures, and Expansion Needs
		CamidorRides Pilot Program - Ope	eretions / Manitor	
way onts				
Non-Highwe Improvemer Local Agend	* Identi	iy Locel Priorities and Secure Long-Ter 380 Express Expansion Studies a	-	Expanded 380 Express and CarridorRides Operations

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INTERSTATE 380 PLANNING AND ENVIRONMENTAL LINKAGES (PEL) STUDY

WHAT'S NEXT



Now (Near-Term):

 Committed Projects – Build the I-80/I-380 Interchange Project and begin the operations for CorridorRides and the 380 Express.

Prepare (Mid-Term):

- Regional Non-Highway Strategies Based on local funding and priorities, extend and expand the regional CorridorRides and 380 Express beyond the pilot period.
- Environmental Study and Preliminary Design Perform an environmental study and preliminary design for the I-380 roadway widening improvements between US 30 and Forevergreen Road.
- Active Traffic Management (ATM) Study Investigate the potential application of ATM improvements and the impacts to the I-380 roadway design.
- Final Design, Right-of-way Acquisition and Construction Based on funding and priorities, perform final engineering design, acquire right-of-way, and begin construction of the I-380 roadway widening.

Future Potential (Long-Term):

 Ongoing Traffic and Safety Monitoring – Continue to monitor and assess the impacts of new vehicle technologies, traffic management, and the need for expansion of the roadway.





PUBLIC COMMENTS

Public comments on the I-380 Vision for Infrastructure Investment are welcomed and encouraged.

Comments can be submitted at:



Website: www.iowadot.gov/I380PlanningStudy



Electronic Devices: Submit a comment using the iPads or your own personal device https://bit.ly/lowadot906882



Comment Form: Drop off completed form at comment table or take home, fill out and return using pre-paid mailer

Comments to be made and received by: November 13, 2018



Record of Public Comments

Comment:

Level of Support:In FavorResponse Requested:Do not send me a responseComment:From a layman's perspective, stop spending time and money studying
obscure aspects of the corridor and get busy:The I-380 & I-80 interchange is hazardous.

A specific example is the I-380 southbound exiting to I-80 eastbound. The exit maneuver is complicated by the rapid deceleration I-380 southbound must make to negotiate the sharp curve in the exit ramp posted at 30 m.p.h. while 218 oncoming southbound (from I-80 westbound) is accelerating in the same short highway space.

As I-380 southbound to I-80 eastbound traffic slowly negotiates the sharp exit turn, it now must accelerate in a short space to match I-80 downhill eastbound traffic usually populated with speeding semi-trucks. That short stretch of acceleration lane also used by I-80 eastbound as deceleration so as to make the exit ramp to I-380 northbound, that paltry ramp also rated at 30 m.p.h. I was nearly hit by a speeding semi-truck there while I was attempting to merge onto I-80 eastbound and was surprised the truck was able to brake in time (right beside me then cutting in front to brake hard) and make the sharp turn in the exit ramp from I-80 eastbound to I-380 northbound.

On the flip side, the I-80 westbound exit to I-380 northbound works well: Plenty of lead highway to get ready for the exit, not to mention many lanes (four at one point) on I-80 to handle traffic moving at various speeds (outer lanes at highway speed, inner lanes decelerating for the exit and working on merging right to make the I-380 northbound ramp). The exit ramp itself is somewhat high-speed at 55 m.p.h.

It does not take a genius to realize the I-80 & I-380 interchange has problems. It DOES take a civil engineer willing to sit down and map out an alternate interchange with a staged-implementation plan. Then bureaucrats to find Federal money and step forward to convince the Iowa legislature to fund the state's part of the project.

Comment:

Level of Support: In Favor

Response Requested: Respond to me by e-mail

Comment: Is the long term plan for I-380 from CR to Iowa City to make it 3 lanes each way? I drive from Swisher to IC morning and evening and to me it appears there is more traffic in the left lane than the right lane simply because no one wants to move back into the right lane because they will not be able to move back into the passing (left) lane.

Date: 04/28/2017

Response Type: e-mail

Response By: Cathy C

Response: I am a frequent traveler of I-380 and would agree with your comment. The mix of automobile and truck traffic traveling at different speeds can also contribute to overuse of one lane. One option we will look at with this study is widening I-380 with an additional lane in each direction. We are also looking at other modes of travel to see if they could help relieve some of the congestion.

Thank you for your comment.

Comment:

Level of Support:NeutralResponse Requested:Do not send me a response

Comment: I would like to see three lanes.

Comment:

Level of Support: Neutral

Response Requested:Do not send me a responseComment:Need to accommodate bike and ped options or mass transit with bikeaccommodations so you can possibly reduce volume.Maybe do rideshare/carpool lanes.Possibly peak out toll/ electronic pass to use new lanes like Peach Pass in Georgia.

Comment:

Level of Support: In Favor

Response Requested: Respond to me by e-mail

I380 from Hwy 30 in Cedar Rapids to I80 in Coralville is a complete mess to Comment: and from work everyday. It really needs to be 3 lane. The other problem is people lolly gagging in the left lane. There really needs to be signs stating "Slower traffic right" "left lane is for passing" and it needs to become a law as it is in our surrounding states. People pass in the right lane, then you come up on slower traffic and people drive irratically because they are trying to pass a slow driver. Also, semis need to keep right during heavy traffice (commuting to and from work). They get into the left lane and sometimes "sqeeze" into the left lane, then come upon a slight hill and slow way down, under the speed limit trying to pass, then people get pissed off and again try to pass in the right. It is crazy and I am almost positive will be the death of me someday..., it's that scarv and crazy. First and foremost, since the construction will take longer... the signs!! I think we all learned the same thing in driver's ed, left lane is passing, but people don't abide. Also, the texting while driving on the interstate has to stop! I have seen so many people swerve and over-correct and then when I pass them, me in the right lane, them in the left, they are looking down at their phones. Semis too. Please Please Please expand this area of 380 put those signs up!!!!

Date: 04/28/2017

Response Type: e-mail

Response By: Cathy C

Response: Thank you for your comments. We do have "slower traffic keep right" signs along I-380.

The overuse of the left lane is something I have observed as well driving along the route and the frustration drivers have when semis are trying to pass. Often those trucks have a governing mechanism on them that prohibits them from exceeding a set speed so they will take longer to pass than an automobile. We continue to discourage drivers from being distracted by anything in their cars including their phones. We are also hoping the new distracted driving law that will go into effect July 1 will stop some of this behavior.

Comment:

Level of Support: Leaning In Favor

Response Requested: Respond to me by e-mail

Comment: I work in CAR and my spouse works in IC, so we purchased a home in Swisher. I think one way to ease congestion on Iowa roadways is to implement the scissor method when one lane is blocked due to an accidental. Currently Iowans merge to one lane, which backs up traffic for miles. The scissor method would reduce the miles of backed up traffic, thus affecting less on ramps.

Date:04/28/2017Response Type:e-mailResponse By: Jon RResponse:Thank you for your comments. The scissor or zipper merge is something wehave tried in Iowa on construction projects along the interstate system but have not had

much success. We have even tried additional signing explaining the zipper but drivers don't seem to understand the benefits as you do. We will continue to try methods to help safely manage traffic.

Comment:

Level of Support: Neutral

Response Requested: Do not send me a response

Comment: I drive 389 every day between Shueyville and Cedar Rapids, except for the many days I have to take an alternate route due to accidents. I do believe that at least one more lane each way is needed, but I also believe that the biggest issue is driver behavior and the lack of any traffic/law enforcement on this stretch. Traffic moves at 10-20 mph over the limit, distracted driving, tailgating is terrible, and people don't use the left lane as intended, including semis. I rarely see local or state patrol. It truly is the most dangerous road I drive and I am always on high alert. I would not opt for public transport were it an option, because I don't have a lot of services in Shueyville, so often need my car to run other errands while in CR.

Comment:

Level of Support: In Favor

Response Requested: Respond to me by e-mail

Comment: While I appreciate the thought you're taking in looking into this study I believe it is only delaying the inevitable that 3 or more lanes in each direction is needed now on I-380 between I-80 and US 30. Myself and other co-workers make this drive every single day and all agree additional lanes are needed given the heavy and increasing traffic amounts. Many of us have needed to make special arrangements through work to either come in early or leave late to avoid the heavy traffic. The population will continue to grow in this area for many years and will only get worse if action is not done now. I feel as though the planning study should have been completed years ago so that action could be taken now. A rail system or commuter van system is not a viable option as jobs in the area are so spread out among the cities and people need more flexibility.

Date: 04/28/2017

Response Type: e-mail

Response By: Cathy C

Response: Thank you for your comments. They will be included as part of the public record for this project. I agree that we will continue to see traffic growth in this area. We do realize alternative modes of transportation such as rail or the van pools are not suitable for all commuters due to life/time demands. We are also piloting a rapid bus for the corridor starting next fall to see how many commuters will take that option.

Comment:

Level of Support: In Favor

Response Requested: Respond to me by e-mail

Comment: To have some kind of rail system or some kind of bus system that would run between Iowa City and Cedar Rapids. I live in Cedar Rapids and work in Iowa City and this would really help with the congestion that is currently experienced on a regular basis.

Date: 05/02/2017

Response Type: e-mail

Response By: Cathy C

Response: Thanks for your comments. We are looking at other modes for travel for commuters and have partnered on a van pool service to area employers that meet certain criteria. We are also funding a rapid bus service for the corridor to help with congestion when we begin our rebuild of the 80/380 interchanges. We also have a ride sharing application you

can use today to find rides :

https://www.iowarideshare.org/Public/PublicPage.aspx?ItemName=TAndCofUse&FileType= html

Comment:

Level of Support: Leaning In Favor Response Requested: Respond to me by e-mail Comment: As a daily commuter on 380/218, one of my biggest concerns is sudden slowdowns of traffic. Almost daily, traffic will go from 75-80 mph, to a near standstill. The most frequent reasons are stranded vehicles, small accidents, or someone being pulled over. While I understand that these situations are justifiable and often unavoidable, I also think we need to find a way to minimize such events as much as possible during our busiest transit hours. A few ideas could include the vehicle breakdown areas used in Illinois, a tow ban during the busiest transit hours, and asking cited drivers to proceed to the nearest exit.

Date: 05/16/2017

Response Type: e-mail

Response By: Cathy C

Response: Thank you for your comments. I agree, even minor problems can impact the traffic speeds along I-380. You make some good suggestions, thank you. We have implemented a Highway Helper program that patrols I-380, M-F, during the day commute times. One of the goals is to help stranded motorists with minor repairs, tire changes, providing gas or even giving the motorist a ride to the nearest convenience station. We are looking at other options - such as the vehicle break down area - when the 80/380 interchange rebuild begins.

Comment:

Level of Support: Neutral

Response Requested: Respond to me by e-mail

Comment: I drive from Exit 19 to Exit 4 and back everyday as a teacher at Clear Creek Amana (even in the summer), but a resident of Cedar Rapids. Everyday, I drive in bumperto-bumper traffic to and from work. When I-380 is under construction, my commute can last as long as 1 hour for the 15 miles that I drive on the interstate. Today was one of those days. I sat in traffic, and I counted 2 accidents, 3 stalled cars (at least one out of gas), and 2 semis with over-sized loads stalled and blocking a lane between Exit 4 and the rest stop north of exit 10.

Both my husband and I work two jobs.Today, which is now happening 2 or more times a week, and it was down to the minute with my husband getting in the car to go to work, as I'm pulling into the driveway and I have to make sure I get home for my children. We need to be able to care for our children, and the safety of this road is horrible, as demonstrated by today's numerous car issues along the corridor.

Date: 06/02/2017

Response Type: e-mail

Response By: Cathy C

Response: Thank you for your observations and comments. We appreciate your input on the corridor and recognize many of the same issues you have identified. Our study will look at options for optimizing the operations of the I-380 corridor as it continues to grow and experience congestion. We will look at adding additional travel lanes and modal options such as a rapid bus or supplemental employee van pools to help manage the traffic.

Comment:

Level of Support: In Favor

Response Requested: Respond to me by e-mail

Comment: I have commuted on I-380 for 20+ years and the traffic has become incredibly dangerous. I am seriously considering finding employment closer to where I live as a result of this. There have been several occasions just in the last month of sudden slow downs, I am just waiting to be in an accident. This has been a problem for at least 5 years and I am not happy that this is now just being addressed. And of course, nothing will be done for 10+ years and I will be retired by then. I understand that funding can be a problem, but how many of us will have to die on this road before something is done?

Date: 06/02/2017

Response Type: e-mail

Response By: Cathy C

Response: Thank you for your observations and comments. We appreciate your input on the corridor and recognize many of the same issues you have identified. Our study will look at options for optimizing the operations of the I-380 corridor as it continues to grow and experience congestion. We will look at adding additional travel lanes and modal options such as a rapid bus or supplemental employee van pools to help manage the traffic.

Comment:

Level of Support: In Favor

Response Requested: Do not send me a response

Comment: Finally! I know the DOT is talking about adding extra lanes between Ames and Ankeny, but I think this needs it more. I would also consider another freeway route east of there between Eastern Iowa City and Cedar Rapids, near Highway 1 maybe. I understand the terrain is difficult and this may be impossible. The problem is there is no good secondary route between Iowa City and Cedar Rapids and it all gets funneled on 380. When driving through, I've thought about finding secondary options, especially with the congestion in Downtown Cedar Rapids, but there's no good secondary option. I wish there was a good way around Cedar Rapids to Iowa City from the North.

In addition, 30 should be multilane/freeway all the way from 35 to 380. This would help lighten the load of traffic on 80 and 380, especially with so many people travelling between Cedar Rapids and Des Moines.

Comment:

Level of Support: In Favor

Response Requested: Do not send me a response

Comment: I think we need more lanes in each direction on interstate 380 between Cedar Rapids and Iowa City.

Also I travel this stretch of highway roughly six days a week, I've encountered traffic jams that were caused by two semi trucks paralleling each other for miles and miles. I ask that the lowa DOT look into barring semi trucks from driving in the far left lane on highways with three or more lanes.

Comment:

Level of Support:In FavorResponse Requested:Do not send me a responseComment:I-380 should be three lanes in each direction between lowa City and CedarRapids.

Comment:

Level of Support: Leaning In Favor Response Requested: Do not send me a response Comment: I-380 in that area should be three lanes so that it eases traffic congestion during peak hours.

Comment:

Level of Support: Less In Favor

Response Requested: Respond to me by e-mail Comment: Another 4 lane road is needed from Highway 30 south to Interstate 80. This would help to reduce heavy truck traffic, commuter traffic, traffic noise, and problems caused by flooding. The new road could be located either south from Mt. Vernon or south thru Fairfax - Wlaford to Interstate 80. If you continue to increase the amount of traffic that I-380 can carry the result be major traffic congestion and very likely major accidents and injuries. I-380 is today a very dangerous road to drive, it is very fast, very loud, and the Highway Patrol does little if any enforcement of the speed limit.

Date: 06/28/2017

Response Type: e-mail

Response By: Cathy C

Response: Thank you for providing comments about the I-380 corridor. The Iowa Department of Transportation has looked at expanding the Iowa 1 and US 151 corridors many years ago but do not believe that's a prudent investment at this time. We have a wide right of way with I-380 so would save the cost of buying additional land and lessen impacts to resources such as farm land for alternative corridors by widening I-380. There are a large number of commuters who would likely not travel out of distance to Iowa 1 or US 151 when their destination is either Cedar Rapids or Iowa City. With the expansion of I-80 in Iowa City, we did not find a significant increase in the noise levels. Much of the noise people hear is from the vehicle tires.

Comment:

Level of Support: In Favor

Response Requested: Do not send me a response Comment: I believe a third lane would help. It used to be there was busy times. Now it is always busy and dangerous.

Comment:

Level of Support: In Favor

Response Requested: Do not send me a response

Comment: All of the on ramps between highway 30 and 380 should be redesigned. Too many cars are trying to merge on to and off of the interstate at the same time during the morning/evening commutes which causes safety issues and congestion on the interstate with slow downs etc. the north liberty exit is particularly bad which is light controlled.

Comment:

Level of Support: In Favor

Response Requested: Do not send me a response

Comment: Lets start with the simple inexpensive things like getting people off their phones! Distracted driving is the biggest problem.

Comment:

Level of Support: Neutral

Response Requested: Respond to me by e-mail

Comment: A 3rd lane definitely needs to be added. The way it is now if there are a few large trucks in the right lane it's dangerous to merge. The cars in the left lane are going way too fast for the trucks to merge, and if they slow down to give space people cut them off and just fill it in before the on ramp.

Also 70 mph is too fast for two lanes. If two lanes are kept then the speed limit should be set so that traffic can co-exist with large trucks that only go about 60 mph. With the limit set at 70 cars routinely go 80 mph or faster. I see two safe choices. One is to lower the limit to 60 mph so that the cars that speed will likely be going 70 mph, or install speed cameras that make them go less than 70 mph.

Date: 06/28/2017 Response Type: e-mail Response By: Cathy C Response: Thank you for your comments. We are looking to add capacity to the corridor through adding a lane in either direction. The Iowa Legislature sets the interstate speed limit at 70 MPH.

Comment:

Level of Support: In Favor Response Requested: Do not send me a response Comment: I would like to see 3 lanes. In hopes of when there is an accident there will still be 2 lanes.

Comment:

Level of Support: In Favor

Response Requested: Do not send me a response

Comment: The road should be widened to six lanes between these two busy interchanges. Improvements to both of the major interchanges should be implemented as well. The cloverleaf ramps need to be eliminated and replaced with a better solution at both interchanges. Additional interchanges in the North Liberty area could also help. Improvements to existing smaller interchanges should be implemented, such as adding lanes at Penn St. in North Liberty. Even a drop in the speed limit from 70 mph to 65 mph would help to lower the average speed of traffic on the road. This heavily traveled corridor should no longer be considered a rural interstate simply due to the sheer volume of traffic. I do not see buses cutting down on much of the traffic, as the road is also along the Avenue of the Saints. The amount of truck traffic has greatly increased along all of I-380, but it is worse in the Cedar Rapids-Iowa City corridor due to commuter traffic. Driverless cars may help cut down on accidents, but the sheer popularity of being in one's own vehicle will still not reduce traffic. I still see that I-380 is in desperate need of widening from four to six lanes.

Comment:

Level of Support: In Favor

Response Requested: Do not send me a response

Comment: Glad discussions are starting. I believe 1) minimum - extend on ramps at Exit 13 to allow semis more time to merge onto 380. 2) next level - create 3 lanes through Exit 4 to North Liberty. 3) highest level - create 3 lanes from 30 to 80.

Comment:

Level of Support: Neutral

Response Requested: Do not send me a response

Comment: A third lane would work, but people also need to realize left lane is passing lane not meant to drive normal and not get over that's way they get honked at...

Comment:

Level of Support: In Favor Response Requested: Do not send me a response Comment: I have been commuting on I380 for 15 years. The volume of traffic and accidents have dramatically increased, and too many evenings the bumper to bumper traffic crawls between Iowa City and Cedar Rapids due to accidents. It has become very much like the Chicago freeway traffic. More lanes are needed. There are already V-rides, shuttle services, etc. available. People don't or cannot use them, and this solution will not carry us into the future. Our road system needs to grow with the community and meet the needs of Iowans who use this highway.

Comment:

Level of Support: In Favor Response Requested: Respond to me by e-mail Comment: Drop speed limit to 55 mph and inforce it ' from north side of CR to I80 ,very little cost ,it will only take a few more min. to go 20 miles. And a lot safer. It's better getting there than not

Date:06/28/2017Response Type:e-mailResponse By:Cathy CResponse:Iowa interstate speed limits are set the Legislature.

Comment:

Level of Support:In FavorResponse Requested:Do not send me a responseComment:Please do something to improve conditions. I drive I380 everyday from CedarRapids to Coralville for work and it is so stressful and scary at times. There are too manycars and we really need three lanes each direction.

Comment:

Level of Support: In Favor Response Requested: Respond to me by e-mail Comment: I vote for some sort of public transportation between cedar rapids and Iowa city..I drive every day to work at the University. Paying a monthly fee to ride public transportation would be totally worth it for me and lots of other people I know.

Date: 06/28/2017

Response Type: e-mail

Response By: Cathy C

Response: Thank you for your comments. We are looking at alternative modes of transportation in our study. We have established some park and ride facilities, assisted with funding for employee van pools through CorridorRides -which started earlier this year and are helping fund a rapid bus services starting Fall of 2018 while the 80/380 interchange rebuild is going on. You can find out more at: http://www.ecicog.org/corridorrides.html

Comment:

Level of Support: Not In Favor Response Requested: Respond to me by e-mail Comment: One of the Design Principles is a median width of 82 ft. How is it measured and how does it compare to I-80 through Coralville and Iowa City?

Date:06/28/2017Response Type:e-mailResponse By:Cathy CResponse:Please see the attached.

Comment:

Level of Support: In Favor Response Requested: Respond to me by e-mail Comment: Please add a third lane & raise speed limit to 75. And if u can add a bike trail somewhere along it that would be awesome. A train from Iowa City to Cedar Rapids & Amana would a great tourist attraction too.

Date: 06/28/2017 Response Type: e-mail Response By: Cathy C Response: Thank you for your comments. Speed limits on lowa's interstates are set by the Legislature. We are looking at the CRANDIC corridor to see what alternative - bike or train - options it could provide.

Comment:

Level of Support: Not In Favor Response Requested: Respond to me by e-mail Comment: I would like an explanation of B Rural/C Urban as it relates to the I-380 highway. Which areas will be which designation?

Date: 06/28/2017 Response Type: e-mail Response By: Cathy C Response: I am not sure what your are asking about - does it concern the median being grass or barrier rail?

Comment:

Level of Support: In Favor Response Requested: Respond to me by e-mail Comment: The speed limit needs to be only 55! Speed Limit 70?is really stupid!

Date:06/28/2017Response Type:e-mailResponse By:Cathy CResponse:Speed limits are set by the Legislature at 70 MPH in Iowa.

Comment:

Level of Support: In Favor Response Requested: Do not send me a response Comment: Add longer lanes on I380 for northbound traffic trying to exit onto US30 west, and especially for eastbound US30 traffic trying to merge onto northbound I380. Regardless of the I380 speed limit there, most of the I380 traffic is still going 70mph, and the merging traffic doesn't have enough room to accelerate to match them.

Comment:

Level of Support: In Favor

Response Requested: Do not send me a response

Comment: 1380 between IC and CR is a deathtrap during rush hours. There are 10:1 cars in the left lane going 80 bumper to bumper, and I mean close, and the right lane moves slow enough people don't want to be in it. Even if you move over, you can't get back out when it's time to pass. It is SOOOO dangerous. Please add a 3rd lane!

Comment:

Level of Support: In Favor

Response Requested: Respond to me by e-mail

Comment: The highway needs to be 3 lanes both ways between Cedar Rapids and Iowa City. People drive incredibly erratically, and several times I have, either myself or been witness, almost been involved in an vehicle altercation. There needs to be a 3rd lane so the people who want to drive with the wind can use the inside lane, people who drive the speed limit can drive the middle lane, and people who drive under the speed limit can drive the outside lane. As it is, now, the volume of traffic is just too high for two lanes, and the people who drive too slow or too fast are a danger to the drivers around them. Also, the volume of semi-trucks on the road coupled with the mass amount of drivers (and it often feels like no one knows how to, or is too afraid to, pass semis in the first place) disrupts the normal flow of traffic immensely. For safety reasons, we cannot stand to keep I-380 between Cedar Rapids and Iowa City only 2 lanes any longer. Speed limits and police patrols will not slow down traffic. And driving 60 MPH or 65 MPH in a 70 MPH zone is not safe driving either with the sheer mass of drivers that use that road. There need to be 3 lanes for the different drivers to use so that traffic can flow more smoothly.

Date: 06/28/2017

Response Type: e-mail

Response By: Cathy C

Response: Thank you for proving your comments. We will be looking at adding capacity to the corridor likely through adding a lane in either direction. As a part of the 80/380 interchange rebuild we add a lane in either direction to I-380 from I-80 to about a mile south of Exit 4.

Comment:

Level of Support: Leaning In Favor

Response Requested: Do not send me a response

Comment: Cedar Rapids is growing in population, meaning more cars are on the road. Add a 3rd lane. Speeding is another issue. Even though the speed limit is 70, many are or want to go 80+mph. That's dangerous, especially if someone isn't paying attention to the road and on there phone. It's extremely difficult to enforce the phone law, too many people unfortunately are on them to pull over. Move those speed cameras off the S curve in downtown CR and put them sporadically between CR and IC on 380 to help regulate and enforce speed limit. Those cameras do work, some people will still speed.. but that money could go to funding that 3rd lane and road repairs.

Comment:

Level of Support:In FavorResponse Requested:Do not send me a responseComment:I would support a 3rd lane for I380.Volume will only increase as the
population moves into the corridor.

Comment:

Level of Support: In Favor

Response Requested: Do not send me a response

Comment: Please provide 3 lanes or more for congestion, car pool lanes, exit lanes, and merge lanes. Please design the road to minimize noise for the drivers and lane visibility at night and wet surface.

Comment:

Level of Support: Leaning In Favor Response Requested: Do not send me a response Comment: In addition to my previous comment. Think about it.. going through Cedar Rapids from Blairs Ferry Road to HWY 30 interchange.. there are 3 lanes. You go North to Waterloo or South to IC.. you get cut down to 2 lanes. For the most part driving through Cedar Rapids is pretty efficient traffic-wise, with many options and exits to get to other areas in CR.. unless when there is an accident traffic will come to a crawl (because 1 lane gets temporarily closed until it's cleaned up). When you go to Iowa City.. all that traffic is getting smushed back into two lanes and causes congestion. I personally avoid taking I- 380 if I can.. to avoid that congestion and speeders. I will get off at the North Liberty exit and take hwy 965 the rest of the way. Other than North Liberty on 965.. there are no other ways or roads to get to IC. If you provide another road of access to Iowa City, wherever or whatever it might be, you are giving drivers another option or route to help spread out the traffic and all those cars cars. I know this isn't a secret, but a lot of people do travel from Cedar Rapids to Iowa City and vice versa.. for their work.

Comment:

Level of Support: In Favor

Response Requested: Respond to me by e-mail Comment: I drive i380 daily in a semi 3 lanes both directions would be nice but perhaps along with or first would be improvements to the i80 i380 interchange it is simply to small the ramp from i380s needs its one lane starting 3/4 to 1 mile north of the ramp as it is now and the merging areas on the i380 us218 bridge over i80 are drastically to small for current daily traffic flow.

Date: 06/28/2017

Response Type: e-mail

Response By: Cathy C

Response: Thank you for your comments. We will be rebuilding the 80/380 interchange starting in 2019. As part of that rebuild, we are adding a lane in each direction to I-380 that will improve safety. The cloverleaf loop ramps will be removed and replaced with directional or flyover ramps that will help truck drivers like you maintain a more even rate of speed as you merge to I-80.

Comment:

Level of Support: In Favor

Response Requested: Respond to me by e-mail

Comment: If any improvements are made to I-380, please look at the elevation of the road bed south of the 965 overpass. During the flooding of 2008 water submerged I-380 and the road had to be closed, causing a major disruption to north/south traffic flow in eastern lowa. Would it be possible to raise this section to allow the road to remain open in the case of future flooding?

Date: 06/28/2017 Response Type: e-mail Response By: Cathy C Response: Thank you for your comment. That low area is certainly something we will address in a future project.

Comment:

Level of Support: Leaning In Favor

Response Requested: Do not send me a response Comment: I know that a lot of people think the solution is adding a third lane. The problem with this idea will be that cars will just fill the extra space. We see this in large cities. 7 lanes on each side and there's still bumper to bumper traffic in Los Angeles. We need to understand why so many people are commuting this stretch so much in the a.m. and p.m. I think a lot of people live in CR because it's more affordable housing than lowa City. Additionally it's harder and harder to find and buy property in lowa City that isn't a rental property or isn't snatched up and bought to be turned into a rental property. There really needs to be limitations on rental properties in lowa City. It would also be good to explore mass transit options. A train and/or bus system for am and pm work hours might be really great and eliminate any issue of increasing interstate congestion.

Comment:

Level of Support: In Favor Response Requested: Respond to me by e-mail Comment: Where is the survey on 380 changes? KCRG had the story but the link they provided doesnt go to a survey. Thanks!

Date: 06/28/2017 Response Type: e-mail Response By: Cathy C Response: https://www.iowadot.gov/I380PlanningStudy/PELStudy.html

Comment:

Level of Support: In Favor

Response Requested: Do not send me a response

Comment: Traveling on I380 between Cedar Rapids and Iowa City is an absolute nightmare most days. Unsafe, inattentive drivers make this stretch of interstate harrowing at the best of times, and it's even worse when cars are on the shoulder, during construction, and during inclimate weather. I commute daily on NB and SB I380 and wish didn't have to. A third Iane NB and SB from I80 to HWY 30 would help to alleviate the oppressive congestion most of the time, as well as an additional exit at Forevergreen Road in North Liberty.

Comment:

Level of Support: In Favor

Response Requested: Respond to me by e-mail

Comment: There absolutely needs to be three lanes of traffic going each way from Cedar Rapids to Coralville!!!! This would help out tremendously with the flow of traffic! It would also improve the safety by having people not passing other cars as much! This stretch of interstate is very busy and it is only going to get worse as both cities continue to grow! It may be wise to put four lanes both ways for future growth.

Date: 06/28/2017

Response Type: e-mail

Response By: Cathy C

Response: Thank you for your comments. We will be looking to add capacity to the I-380 corridor. With the rebuild of the 80/380 interchange we plan to six lane from I-80 to about a mile south of Exit 4.

Comment:

Level of Support: In Favor

Response Requested: Respond to me by e-mail

Comment: 1. A third lane in each direction - perhaps the inside lane in each direction would be a carpool lane, at least during peak traffic times.

2. Have two-lane on ramps at busiest interchanges with red/green lights that alternate and control the rate of cars entering traffic.

3. Two-lane off ramps at busiest interchanges - and/or extra long exit lanes.

4. Often when traffic gets backed up during my commutes, it is due to a truck traveling in the "fast lane" and that truck is travelling less than 70 mph - often up hills - so a third lane on the

outside for trucks/slower traffic and prohibiting trucks/vehicles traveling less than the speed limit from being in the "fast lane."

Date: 07/06/2017

Response Type: e-mail

Response By: Cathy C

Response: Thank you for your comments. We are looking to add capacity to the interstate. Regarding your point two - ramp metering with lights - we have looked into using that in lowa but find it has not been successful in other states - such as Minnesota. The Department has included the "passing lane" as a message on the DMSs as a "Monday Message". When it is the "Monday Message" there is a corresponding blog article that talks about the issue. The last one was displayed on June 26, 2017 and here is a link to the article - http://www.transportationmatters.iowadot.gov/ Similar messages have been displayed in the past, so the Department is attempting to get the message out to the driver.

The Department has installed "Slower Traffic Keep Right" signs on the Interstate highways across the state. There are several of these signs installed on I-380 between Iowa City and Cedar Rapids. As mentioned in the blog article, the Iowa Code also addresses this issue and requires any driver travelling at less than the normal speed of traffic to be driving in the right lane. Enforcement of this section of the code falls under the responsibility of law enforcement officers. However, it is a difficult law to enforce.

On the issue of restricting trucks to the right lane, the Department has the authority to restrict the use of certain lanes by type of vehicle. Legislation would not be needed to implement lane restrictions. However, it would be difficult to restrict trucks to the right lane on a two-lane Interstate. Some of the reasons for not restricting trucks to the right lane on two-lane Interstate highways include:

- There are times when the truck needs to move to the left lane, i.e. a stalled vehicle on the shoulder, the "Move Over" law requiring drivers to move over for law enforcement vehicles, maintenance vehicles, tow trucks, utility vehicles, etc.

- If there are high volumes of trucks they can create a barrier for vehicles needing to return to the right lane when they want to exit or move over to allow faster drivers to use the left lane.

- Trucks will not be able to use the left-lane to allow vehicles entering from an entrance ramp to merge into traffic, creating a less safe merge situation.

- Truck drivers would be forced to drive behind slower drivers for a number of miles, increasing the frustration for them. This would result in poor compliance with the lane restrictions.

Lane restrictions for trucks are more common on Interstate highways with three or more lanes, in rural areas. Having three lanes allow trucks to pass slower vehicles, move over to allow entering traffic to merge more easily and are less likely to create a barrier for other traffic trying to use the right lanes.

Comment:

Level of Support: Neutral

Response Requested: Do not send me a response

Comment: If everybody would do the speed limit and use turn signals when changing lanes then there won't be any accidents.

Comment:

Level of Support: Neutral Response Requested: Respond to me by e-mail

Unfortunately the best fix would be reteach people how to drive slow people Comment: in the left lane fast in the right don't tailgate. I think the more permanent solution will be widening it to 3 lanes in both directions and replacing the bridges over the Coralville Reservoir, another option is to encourage use of 965 rather than 380. Finally I can't remember if this is a law/regulation on the books in Iowa, but when i lived in Wisconsin it was a rule and there were signs reminding traffic of it, unless it is an emergency truck drivers cannot use the left lane on a 3 lane section of road. Thanks for what you guys do.

06/28/2017 Date:

Response Type: e-mail

Response By: Cathy C

Response: Thank you for providing comments about the I380 corridor. We do have signs along the corridor that say"Slower Traffic Keep Right" but we do know this is not always happening. Iowa currently does not restrict trucks to specific lanes but with more and more six lane corridors it is something we could consider. We would not encourage traffic to use a roadway not under our jurisdiction so will not direct traffic to 965 (a former state route).

Comment:

Level of Support: In Favor

Response Requested: Do not send me a response

Comment: Three lanes each side is probably the best solution. People commute to work and home from work. They dont want to take the time to use public transportation. A third lane will provide enough room for passing the people who dont know how to move over to the right side of the highway. Trucks are also a big problem with two lane highways. They take much longer to pass eachother, and sometimes ride miles side by side before they do. They far to easily congest traffic. A couple of slower moving cars or trucks in the right will cause 80% of the traffic to move to the left side. This condenses the traffic and ends up being nearly bumper to bumper in the left lane. A tap on the brake will cause a chain reaction and then traffic in both lanes are frustratingly slow. There is enough traffic (cars and semi-trailers alike) between Cedar Rapids and Iowa City to justify a third lane between them. If a third lane is chosen, I only hope you dont use the same teams and crews who work on the roads in Cedar Rapids. Roads are shut down to one lane, cones everywhere, and there is never any work or progress being done! Edgewood road has been an absolute mess for weeks up weeks now, granted it isn't exactly road work being done, it still takes unnecessarily long (months) to complete any project that disrupts the flow of traffic around here. Not to mention the poor road conditions all over the city even with the 1% sales tax hike. The roads are horrendous.

Comment:

Level of Support: In Favor Response Requested: Do not send me a response My opinion is that if you thinking of adding another lane and make it a 3 lane Comment: interstate. While you are at it you might just as well make it a 4 lane road and have it done with.

Thank You

Comment:

Level of Support: Leaning In Favor

Response Requested: Do not send me a response

Add 2 more leaned to 380. Redesign the on and off ramps that are 15-30mph. Comment: Its not reasonable to glow down from 65 to 30 in those short lanes. Make wider shoulders so people getting pulled over don't disrupt traffic.

Comment:

Level of Support: Leaning In Favor

Response Requested: Do not send me a response

Comment: A lot of people don't move over, after passing. And people behind them, do dangers things, to get around them. people are speeding, or they stay in blind spots of semi trucks, or cars. people getting on the interstate have no room to get on, because not everyone can move over. Some semi drivers don't look or see the cars that can't move over, and speed up to get on, and some people have to stop or slow down. While the cars behind them have to slam on there brakes to stop. I think a third lane would help out a lot. I followed one, elderly women getting on the interstate doing 25 miles. Or some of the elderly will, only do 55. And people lose patience, with them. Some people can move over but don't. You can't control everything people do. So I think a third lane would help people move better.

Comment:

Level of Support: In Favor

Response Requested: Respond to me by e-mail

To ease congestion, and make 380 safer you need to ticket drivers that are Comment: impeding traffic. If they are not using the left lane for passing, and are holding up traffic, they should be ticketed. Too many people don't know that the left lane was intended to be used for passing. Maybe install signs saying the left lane is for passing only, or get the news stations to tell people that the left lane is only for passing. It seems too many people have little common sense when it comes to this issue. Some people feel as long as they are driving the max speed or a little under that they are entitled to drive in the left lane. By doing so they back up the traffic because then others that are going faster can't pass. People need to learn to pass and get right back over otherwise they make the road congested and cause people to have road rage. People need to stop thinking they are traffic police. They need to get out of the way and let the police worry about the speeders. Maybe a public service announcement about it could help. Also I have seen more and more irresponsible semi drivers in the last few years. I know many of them have governors in their trucks. Why are they allowed to drive side by side for mile after mile when they can't get around another truck? If they can't pass then they should not be trying to pass. Maybe make them stay in the right lane from Iowa City to CR?

Date: 07/06/2017

Response Type: e-mail

Response By: Cathy C

Response: Thank you for your comments. The Department has included the "passing lane" as a message on the DMSs as a "Monday Message". When it is the "Monday Message" there is a corresponding blog article that talks about the issue. The last one was displayed on June 26, 2017 and here is a link to the article -

http://www.transportationmatters.iowadot.gov/ Similar messages have been displayed in the past, so the Department is attempting to get the message out to the driver.

As you mentioned, the Department has installed "Slower Traffic Keep Right" signs on the Interstate highways across the state. There are several of these signs installed on I-380 between Iowa City and Cedar Rapids. As mentioned in the blog article, the Iowa Code also addresses this issue and requires any driver travelling at less than the normal speed of traffic to be driving in the right lane. Enforcement of this section of the code falls under the responsibility of law enforcement officers. However, it is a difficult law to enforce.

On the issue of restricting trucks to the right lane, the Department has the authority to restrict the use of certain lanes by type of vehicle. Legislation would not be needed to implement lane restrictions. However, it would be difficult to restrict trucks to the right lane on a twolane Interstate. Some of the reasons for not restricting trucks to the right lane on two-lane Interstate highways include:

- There are times when the truck needs to move to the left lane, i.e. a stalled vehicle on the shoulder, the "Move Over" law requiring drivers to move over for law enforcement vehicles, maintenance vehicles, tow trucks, utility vehicles, etc.

- If there are high volumes of trucks they can create a barrier for vehicles needing to return to the right lane when they want to exit or move over to allow faster drivers to use the left lane.

- Trucks will not be able to use the left-lane to allow vehicles entering from an entrance ramp to merge into traffic, creating a less safe merge situation.

- Truck drivers would be forced to drive behind slower drivers for a number of miles, increasing the frustration for them. This would result in poor compliance with the lane restrictions.

Lane restrictions for trucks are more common on Interstate highways with three or more lanes, in rural areas. Having three lanes allow trucks to pass slower vehicles, move over to allow entering traffic to merge more easily and are less likely to create a barrier for other traffic trying to use the right lanes.

Comment:

Level of Support:NeutralResponse Requested:Respond to me by e-mailComment:I would like to see DOT explore the idea of passenger rail travel along I-380,specifically between Cedar Rapids and Iowa City.

Date: 06/28/2017

Response Type: e-mail

Response By: Cathy C

Response: Thank you for your comments. The CRANDIC line has been examined multiple times for passenger rail use - the latest being last year. At this time, Alliant Energy (the owner) is pursuing the idea from North Liberty to Iowa City. Upgrading the tracks and revamping the crossings to meet Federal requirements for passenger rail are very expensive and that has been one of the sticking points in past studies. We are looking at all options for the CRANDIC corridor - including light rail, automated vehicle or trolley type service. If that proves feasible, the line would still end near the Eastern Iowa Airport and passengers would have to take other means of transportation to their destination in Cedar Rapids area.

Comment:

Level of Support: In Favor

Response Requested: Respond to me by e-mail

I work for Johnson County Ambulance Service. Needless to say I and my co-Comment: workers are on I380 24/7 responding to calls. I have several suggestions/concerns which affect all first responders and construction crews. The interstate should be enlarged to three lanes both north and south bound with additional off/on ramp lanes. Not only will this allow traffic to flow more easily, but it will give drivers more room to move over and allow us to get through to accidents. Right now traffic gets so backed up that we often have to go up Hwy 965 and come back down or find an alternative route to access accident scenes. Secondly, if you could widen the shoulders to accommodate for our large vehicles, it would much appreciated. When other vehicles do not move over and we have to drive in the median, we sometimes have difficulty if the ground is soft due to rain or snow. We have actually needed towed before which adds to the congestion during accidents. Thirdly, a Forevergreen Rd ramp would significantly ease the congestion and accidents around exit 4. We all know there are daily accidents between the mile marker 4 and 9. If you choose to revamp the cloverleaf, please keep us in mind when designing and closing access. We have limited resources and serve the entire county, thus the interchange is vital for us to reach patients in a timely manner. I would be more than happy to discuss our concerns further. Thank you for your time.

Date: 06/28/2017 Response Type: e-mail Response By: Cathy C Response: Thanks. 06/28/2017 Date: Response Type: e-mail Response By: Cathy C Thank you for providing comments. I-380 will be widened to six lanes when Response: we start rebuilding 80/380 interchange. It will taper back to four lanes about a mile south of exit 4. The shoulders will be 10' feet wide which is the standard design for the interstate. The new interchange at Forevergreen Road will start this fall. We hope to open the new interchange by 2020. We have a working group of local law enforcement, UIHC and others that meets regularly to discuss the rebuild of 80/380 and how emergency responses will be handled during construction. If you are interested in attending those meetings, I can add you

Comment:

Level of Support: In Favor

Response Requested: Do not send me a response

or others to the invite list. We meet in Iowa City.

Comment: I have 2 suggestions. 1 - Add another lane. This will definitely ease some of the congestion. 2 - Enforce the 'left lane is for passing'. I have driven this stretch a LOT and some drivers refuse to leave the left lane or insist on hanging out next to another vehicle for several miles.

Comment:

Level of Support: In Favor

Response Requested: Do not send me a response Comment: The amount of people driving I-380 between Iowa City and Cedar Rapids is enough to warrant a third lane being added. The interchange between I-380 and I-80 is seriously dangerous. It also needs updated to account for the amount of traffic using each

Comment:

day.

Level of Support: In Favor

Response Requested: Respond to me by e-mail

Comment: Add an exit lane to exit 4. This always backs up onto the freeway during peak times. Make the 1-80 exit a protected exit lane. I see too many people speed ahead of trucks to cut it at the last second to make exit 0. Change the paint on i-80w so that the entering traffic from 965 north does not have to merge into main traffic to get on 380N

Date: 07/06/2017

Response Type: e-mail

Response By: Cathy C

Response: Thank you for your comments. We are looking to add lanes to I-380 but will transition back to four lanes at mile marker 3 with this project. Hopefully, the new interchange at Forevergreen Road will draw some traffic off of the Penn Street Interchange. The merge on I-80 Westbound is purposeful so that we have traffic using the main portion of the interstate rather than getting trapped in an exit lane to I-380 when they really want to continue on I-80.

Comment:

Level of Support: Leaning In Favor Response Requested: Do not send me a response Comment: I BELIEVE A LOT OF THE PROBLEMS ARE SPEED RELATED, CARELESS DRIVING . HAVE TO REEDUCATE PEOPLE THE OLD TIME COURTSEY OR NO MATTER HOW MANY LANES SOMEONE WILL BE MAD

Comment:

Level of Support: Leaning In Favor Response Requested: Do not send me a response Comment: I feel like driving on 380 during rush hour is very dangerous. Speeds are too fast and drivers are very aggressive. I'm surprised there aren't more accidents. Driving here makes me very nervous.

Comment:

Level of Support:In FavorResponse Requested:Do not send me a responseComment:With the growth of the area and expected continued growth a third lane in
both directions is the best option.

Comment:

Level of Support:In FavorResponse Requested:Do not send me a responseComment:I think 380 needs to be 3 lanes from 80 to CR with the 3rd lane beginning asthe on ramp from 80.Additionally there needs to be extended length off ramps at NorthLiberty, Penn street.

Comment:

Level of Support:In FavorResponse Requested:Respond to me by e-mailComment:Aggressively ticket people for doing the speed limit in the left lane.Limit 18 wheelers to middle and right lane in CR. Aggressively ticket offenders.Add 3rd lane from CR to I-80, Thunderdome rules for 3rd lane.Shame slow drivers on Nesper sign.

Date: 06/28/2017

Response Type: e-mail

Response By: Cathy C

Response: Thank you for your comments. Some seem a little more realistic than others but we appreciate you taking the time to share them. Dedicated truck lanes have pros and cons but is something we may consider.

Comment:

Level of Support: Neutral Response Requested: Do not send me a response

Comment: I travel that stretch of road when I have to go to the hospital. I am seriously looking at trying another route. I feel that it is dangerous to be travelling 70-80 mph in bumper to bumper traffic. I refuse to take 380 through CR because of the speed and traffic. But it is getting just as bad from CR to 80. I think that only way to make it safer it take the idiots off the road. I even noticed motocycles change lanes continuously in order to go faster. Don't people value their lives at all?

Comment:

Level of Support: In Favor

Response Requested: Do not send me a response

Comment: ANYONE, ANYONE ! who regularly travels 380 constantly battles delays, high traffic volumes, and dangerous driving conditions. Another lane is long overdue- stop studying that problem and address the problem.

Comment:

Level of Support: In Favor

Response Requested: Do not send me a response Comment: The best improvement that could be made to I-380 would be to add lane(s) in each direction over the entire length of the roadway. Funding for this effort should be obtained by making I-35 and I-80 tollways within the boundaries of the State of Iowa.

Comment:

Level of Support: In Favor Response Requested: Do not send me a response Comment: Please expand 380 to 3 lanes.

Comment:

Level of Support:In FavorResponse Requested:Do not send me a responseComment:I380 needs at least 2 more exits into North Liberty and all of HWY 965 needsto be 4 Lanes!

Comment:

Level of Support: Leaning In Favor Response Requested: Respond to me by e-mail Comment: I have commuted daily from Iowa City to Cedar Rapids for the past 12 years so I know I-380 well.

While I don't have data to back this up, it seems like there has never been a year where some type of construction project on I-380 causing a lane shift or lane closure has not occurred. I am sick, annoyed, frustrated, and pissed off at how much construction seems to take place annually without any noticeable improvement in the quality of the highway. "If you don't have time to do it right, when will you have time to do it over?" - John Wooden

The median cable barriers make accidents worse, don't get fixed for weeks after accidents, and look like crap when left unrepaired. I understand their purpose in preventing vehicles from crossing the medians but they also cause more traffic flow disruption because vehicles are sticking out onto the highway.

Another observation is certainly the number of accidents that occur, which seem to be concentrated around the Hwy 30 / I-380 exchange, the Swisher / Shueyville exits, just north of the North Liberty Southbound exit onto Penn Street and the 1-2 mile stretch north of North Liberty because of the lack of snow fencing to prevent blowing snow. The lack of snow fencing makes this part of I-380 very slick when blowing snow occurs.

Drivers are morons..... I have personally witnessed drivers, not passengers; shaving, applying makeup w/ the driver's visor mirror, reading a book, reading a newspaper, and countless people texting, or just scrolling on their phones. Besides that, they drive slow in the passing lane and don't yield when merging onto I-380.

Date: 06/28/2017 Response Type: e-mail Response By: Cathy C Response: Thank you for your comments. The 380 corridor is heavily used and will always be in need of routine maintenance repair on a yearly basis and larger projects from time to time. The DOT's position on the median cable barrier is that they have saved lives and prevented crashes from turning into fatal crashes. We do have an on call contractor who does the repairs and we do bundle them for some cost efficiency but can appreciate the frustration when they are not repaired in a timely fashion. We do believe adding capacity will help with safety concerns along the corridor.

Comment:

Level of Support: In Favor

Response Requested: Do not send me a response

Comment: The I80 west to I380 north on ramp area is a bottle neck so extending that on ramp to allow semi's to get up to speed would help. This would involve widening the railroad and hwy 6 overpasses. (This may already be part of the updated 80/ 380 interchange plan). Overall a third lane in both directions would help a lot but plan to add two additional with-in the next 15 years when you're spending the money to widen all of the bridges!

Comment:

Level of Support: In Favor Response Requested: Respond to me by e-mail Comment: I feel like a third commuter lane would be very helpful, I drive a commuter van for UIHC, and a commuter lane would help a lot. I do feel that the soeed cameras in Cedar Rapids should stay, whether they move them or not. I have noticed a hugh difference in the speed that people are driving.

Date: 06/28/2017

Response Type: e-mail

Response By: Cathy C

Response: Thank you for your comments. We are sponsoring some commuter options ahead of the six lane with van pools, park and ride lots and a rapid bus service for commuters starting in 2018.

Comment:

Level of Support:In FavorResponse Requested:Respond to me by e-mailComment:I find in many condition lane markings to be illegible. I appreciate thereflectors used for lane markings in states that use them. Would make a nice addition to anynew road construction.

Date: 06/28/2017 Response Type: e-mail Response By: Cathy C Response: Thank you for your comments regarding lane markings. We have tried the raised reflectors in Iowa but find they don't last long when snow plow season comes along. We do paint the lines yearly once the weather warms up and will do so this year.

Comment:

Level of Support: In Favor

Response Requested: Do not send me a response

Comment: so..as we know this road is a death trap. I don't think the buses will work they will just make things worse by actually going the speed limit. it needs to be a 3 or 4 lane road. simple as that, theirs no way around it.. start making plans now, the stretch from north of c.r. to waterloo not bad. from south of iowa city to c.r...hell, this area is going to just keep growing and growing. plse start building soon.

Comment:

Level of Support: Less In Favor Response Requested: Do not send me a response Comment: PLEASE PLEASE before you take more ground- spend the dollars on the rail line that runs right along I 380. Use the funds for rail stations and to upgrade the lines!!! Do this first before you would add another line.

Let Iowa LEAD the nation in forward thinking on transportation and people moving. Thank you!!!

Comment:

Level of Support: In Favor

Response Requested: Do not send me a response Comment: Add a third lane between Cedar Rapids and Iowa City. During peak hours the traffic is unbearable. If there is anything happening on or near the road (like an accident, someone pulled over, tractor, etc.) traffic comes to a standstill.

Comment:

Level of Support:In FavorResponse Requested:Do not send me a responseComment:It seems to me that there should be a third lane in at least the areas closest to
the north liberty exit and swisher/shueyville

Comment:

Level of Support: In Favor

Response Requested: Do not send me a response

Comment: The I380 Corridor between Cedar Rapids and Iowa City is very dangerous for many reasons. I try and avoid it if possible. Traffic is very heavy (including a lot of over the road hauling/oversized vehicles, distracted drivers and drivers going excessively fast, Many hours of the day, it is bumper to bumper the entire stretch between communities. The addition of a 3rd Northbound as well as a 3rd Southbound lane would undoubtedly ease the congestion and allow commuters a safer, slower lane to travel. As a business professional who works both ends of the corridor, I would not utilize a light rail or car pool option as my job requires travel variability throughout the day.

Comment:

Level of Support: Not In Favor

Response Requested: Respond to me by e-mail

Comment: Please let me know where I can direct comments on this I adamantly oppose widening to six lanes. Please let me know where we can direct comments opposing this unwise and myopic study.

Date: 06/28/2017

Response Type: e-mail

Response By: Cathy C

Response: You may continue to use this web site for comments or send directly to me at: catherine.cutler@iowadot.us

Comment:

Level of Support: Neutral Response Requested: Do not send me a response Comment: Make it illegal to drive in left lane unless passing I do more passing on the right then the left not allow semis to drive in left hand lane from boysen road to airport exit unless passing

Comment:

Level of Support: In Favor Response Requested: Do not send me a response Comment: Add lanes for at least a total of 6

Comment:

Level of Support: Leaning In Favor Response Requested: Do not send me a response Comment: Acceleration lanes. Particularly around Hwy30 & Wright Brothers. Truck traffic around the airport causes unsafe bottlenecks and a lot of lane changes as semis merge on to the road at 60 mph or less.

Comment:

Level of Support:Leaning In FavorResponse Requested:Respond to me by e-mailComment:Heard you on WMT radio this morning. Is there a survey we can take about1380? Where is it? Too hard to find on this site (if there is one).

Date:06/30/2017Response Type:e-mailResponse By: Cathy CResponse:No survey but see you did leave us comments. Thank you!

Comment:

Level of Support: Leaning In Favor

Response Requested: Do not send me a response

Comment: OK so this must be the survey. My problem with 380 includes these 3 items: 1. People driving way over the 70 mph limit. 2. People load the left lane and will not let you over - you can get trapped behind a slow driver for miles before a break in the left lane. 3. Tailgating - it's bumper to bumper at 75mph - no wonder there is an accident every day. Drivers on 380 are discourteous and don't obey basic common sense traffic laws. I don't know how to fix it. Police only help where they are seen. Tailgating is so bad it is impossible to enforce.

Comment:

Level of Support: In Favor Response Requested: Respond to me by e-mail Comment: Post signs that state," THRU TRAFFIC OVER 20' TO USE LEFT LANE " This will aid in safer traffic flow with better sight distance at on and off ramps as well as vehicles on the shoulder.

Date:07/25/2017Response Type:e-mailResponse By:Cathy CResponse:The proposed sign would restrict trucks from the right lane.

The average length of a car/SUV ranges from 177" to 208", so they would not be included in this restriction. The wording only applies to through traffic, so local traffic, or exiting/entering can stay in the right lane.

This requirement would force all through trucks to the left lanes, so all vehicles would have to use the right lane to pass. This increases the speed of traffic in the right lane and creates an unexpected/unusual situation of traffic passing on the right. Visibility of passing vehicles is better when they pass on the left. And, any local truck traffic would be in the right lane, so they can exit the Interstate. This mixes the slower traffic through out all the lanes, making it more difficult to pass the slower moving vehicles.

With the passing vehicles (faster vehicles) in the right lane, the merging traffic would now have to merge with faster moving vehicles, or the faster moving vehicles would need to slow down to make the merge situation operate smoothly. This would be less safe than it would be without the restriction, as it creates a larger variation in vehicle speed between the merging traffic. Also, having the passing/faster vehicles in the right lane would move them closer to any stalled or emergency vehicles on the shoulder. The faster traffic would have less time to react and would have to merge to the left lanes with the slower traffic.

Having all lanes open to all traffic would provide the best traffic operations, and options for the drivers. It keeps the driving environment as "expected" for all the drivers.

Comment:

Level of Support: Neutral

Response Requested: Respond to me by e-mail

Comment: I understand that the lowa 100 bypass is being built on the west side of Cedar Rapids. Could that route be used along with that part of US 30 which is built to freeway standards as an alternative route for Interstate-380? Perhaps the whole of Interstate-380 could be redesignated as Interstate-37; this would come in handy if the Avenue of the Saints were to be upgraded to freeway standards south of Iowa City down to St. Louis, Missouri. I realize that I'm just a road buff or road geek, but I was wondering if the Iowa 100/US 30 bypass route could serve as an alternative if Interstate-380 had to be closed as it was during the 2008 floods. I am just curious.

Date: 07/20/2017

Response Type: e-mail

Response By: Cathy C

Response: Hi: One of the reasons for completing the Iowa 100 extension was, indeed, to provide a reliever route to I380. 100 will also help by drawing traffic off of Edgewood Road. We will not reassign a different highway number to Iowa 100 as it is an extension of an established highway but certainly though traffic could use the route as a bypass. We did use the 2008 flood level to ensure the Iowa 100 bridge over the Cedar River would remain open for traffic if the area receives that level of flooding in the future.

Comment:

Level of Support: In Favor Response Requested: Do not send me a response Comment: Need more lanes between Cedar Rapids and Iowa City. Extremely dangerous, congested traveling during certain times of the day.

Comment:

Level of Support: Neutral Response Requested: Respond to me by e-mail Comment: The truck traffic is so high, it would be great to dedicate two lanes only to trucks and separate that traffic.

Date: 07/25/2017 Response Type: e-mail

Response By: Cathy C

Response: On the issue of restricting trucks to a certain lane, the lowa Department of Transportation has the authority to restrict the use of certain lanes by type of vehicle. Legislation would not be needed to implement lane restrictions. However, it would be difficult to restrict trucks to the right lane on a two-lane Interstate. Some of the reasons for not restricting trucks to the right lane on two-lane Interstate highways include:

- There are times when the truck needs to move to the left lane, i.e. a stalled vehicle on the shoulder, the "Move Over" law requiring drivers to move over for law enforcement vehicles, maintenance vehicles, tow trucks, utility vehicles, etc.

- If there are high volumes of trucks they can create a barrier for vehicles needing to return to the right lane when they want to exit or move over to allow faster drivers to use the left lane.

- Trucks will not be able to use the left-lane to allow vehicles entering from an entrance ramp to merge into traffic, creating a less safe merge situation.

- Truck drivers would be forced to drive behind slower drivers for a number of miles, increasing the frustration for them. This would result in poor compliance with the lane restrictions.

Lane restrictions for trucks are more common on Interstate highways with three or more lanes, in rural areas. Having three lanes allow trucks to pass slower vehicles, move over to allow entering traffic to merge more easily and are less likely to create a barrier for other traffic trying to use the right lanes.

Comment:

Level of Support: Neutral Response Requested: Respond to me by mail Comment: Hi Catherine,

I-380 seems like mission impossible. I do believe building roadways for more traffic will give you just that- more traffic. Certainly hard to place myself in IDOT'S shoes. I'm guessing the biggest obstacle would be source of revenue. How far fetched idea wise are you going? My last idea was mocked, laughed at and took millions of dollars and over 20 years to happen (a paved bike trail from North Liberty to Iowa City, 1997). I am thinking crazy things like improving existing alternative routes with a posted ETA time. I am stuck on some how elevating the median of I-380 for a better use. Elevating Dubuque street in Iowa City was only 40 Million? Any Possibility of convincing law makers to use Tolls for special roadway? Would be great to have crime pay with use of speed cameras on lowas Information Bill boards to picture those habitual speeders and texting drivers. What if you thought about using billboards posting temporary video shots of traffic 5 miles down the road so drivers can opt to get off that roadway at nearest exit & take different route. For example if I was driving from Iowa City to Cedar Rapids via I-380 at happened to notice by direct streaming to a bill board the mess that was waiting ahead for me on I-380. I would certainly get off Swisher Exit and take HWY 965. This might be worth researching? I am using desperation mode for ideas. Certainly ok if folks think they are stupid. I know it is part of the process & a lot of red Tape. Sometimes the private sector can provide a solution without as much red tape. You already have videos of Hwys streaming to the Ankeny office. Why not have them available like SKYPE and/or GPS? That way i can as a common Commuter get my traffic info ASAP and plan the best route (to consider alternatives) ASAP. Could be like using The KCRG Traffic Drone. I discourage use of i-380 to friends, students and family. TOO risky especially Fridays, 5:00pm, 7:00AM & any sort of bad weather fog, rain or darkness. Speeds are too high I-380 needs reputation like University heights and speed cameras. I believe it is time to start thinking about changes with our system of travel/commuting. Maybe 20 years from now we might have a good thing.

Not sure if this is the kind of brainstorming you want if at all,

Comment:

Level of Support: In Favor

Response Requested: Respond to me by e-mail

Hi, I live in Iowa City and work in downtown Cedar Rapids. I drive I-380 Comment: everyday typically in peak traffic hours 7:30am-8:30am and 4:00pm-5:30pm. During these peak hours driving in my opinion is very dangerous. People drive 75+mph and allow 5 feet between their car and the one in front. Many times I could not read the license plate of the car behind me and on top of that you constantly get people moving from slow lane to fast lane cutting cars off and cause someone to slam on their breaks which causes a domino effect and it's this constant speed up then slam on breaks. Then add in the issue with cars backing up in the right lane when trying to exit at North Liberty or I-80 it has really made me consider changing jobs to avoid driving on I-380. I am sure the state has this info and the changes being made around North Liberty and the I-80 overhaul should help change that but I believe I-380 should be 6 lanes between Iowa City and Cedar Rapids. I have heard of the bus/train/carpool etc but I know I wouldn't be able to do that due to my unknown need to visit clients on any given day plus the business in Cedar Rapids seem to be more spread out then in Iowa City where a train or bus to the university or ACT in Iowa City could be a decent solution. Please let me know if my thoughts or experiences can help, I am happy to share. Thanks and best of luck fixing this huge problem.

Date: 11/14/2017

Response Type: e-mail

Response By: Cathy C

Response: Thank you for providing your comments about the I-380 study. Having driven the corridor frequently myself, I agree with many of your observations. We are looking at adding capacity to the I-380 corridor and appreciate your support for that effort.

Comment:

Level of Support: In Favor Response Requested: Do not send me a response Comment: Please please do what you can to improve safely on this dangerous roadway! Too many accidents, too many fatalities.

Comment:

Level of Support:Leaning In FavorResponse Requested:Do not send me a responseComment:My primary concern is keeping people safe. Drivers already abuse speedlimits in this area (and others) and that could be compounded both during construction andonce there are additional lanes to use. Bad weather conditions will of course add to thisimpact.

Comment:

Level of Support: In Favor

Response Requested: Do not send me a response

Comment: If they plan to add 1 more lane on each side, might as well save the trouble down the line and add 2 on each side- I have never experienced such frustration levels while driving on I-380 from Coralville to CR. Having to accelerate and slam on your breaks every 3 seconds makes for a high-anxiety and dangerous drive. Absolutely ridiculous.

Comment:

Level of Support: In Favor Response Requested: Do not send me a response Comment: 380 between Cedar Rapids and Iowa City needs to be expanded to 6 lanes effective yesterday. This road is carrying way too much traffic as it is, always seems to have an accident of some sort at least multiple times a month that backs up traffic and just in general is a very busy road. As Iowa City and Cedar Rapids grow into one another this road has become more urban than rural in nature. Especially around North Liberty which has grown nearly 6 times its size in 20 years. Time to put this project on the fast track and not wait any longer.

Comment:

Level of Support: Leaning In Favor

Response Requested: Do not send me a response

Comment: Why cant they give some alternate routs. Build a new bridge for curtis bridge road across the iowa river. And an interchange at 965 and 380 crossing. Before starting to making 380 3 lanes

Comment:

Level of Support: In Favor

Response Requested: Do not send me a response

Comment: Would like to see wildlife/pedestrian tunnel between Toddville exit and Center Point exit. Many deer crossing and impacts in that area. There are more cyclists and pedestrians too that need to cross the interstate as this area is a good area to cycle in.

Comment:

Level of Support: Leaning In Favor

Response Requested: Respond to me by mail

Comment: Having traveled I-380 5 days a week for the last 13 years (I live in C.R. and work in Coralville, I have observed 3 things: To allevieate congestion, it needs to be at least 6 lanes instead of 4. By the time construction of such a project is finished, it will need to be 8 lanes, due to the population increase. 2) It needs to be patrolled to keep speeds down. As speeds increase, there is less reaction time. I drive racecars for a hobby, and that is relaxing compared to driving during rush hour. I feel like I'm driving in Chicago. I-380 has to have one of the highest accident rates that there is in the state. Many semi-trucks have governors that don't allow them to even drive the speed limit. When the majority of drivers drive an avg. of 80 mph and the discrepancy of speeds is at least 10 mph and more, bad things happen when there are lane changes. In the winter time about once a week I am delayed due to an accident on I-380 between Cedar Rapids and Coralville. 3) The law requiring people to drive on the right and pass on the left, needs to be enforced. Too often, people are driving while not passing in the left lane, thus bottling traffic up and getting people upset, who then try to speed up and pass them on the right. This causes even more congestion. Thank you for your time!

Date: 04/06/2018 Response Type: mail Response By: Jon R Response: Cathy responded on 4/6/18 via mail:

April 6, 2018 IM-380-6(263)0--13-52

Thank you for providing your written comments regarding a planning study for the I-380 corridor. We appreciate hearing from you. I agree that there is need for extra capacity on the I-380 corridor. Speeding is a concern in this corridor and it is patrolled but there is a risk anytime law enforcement pulls someone over on the shoulder that can create backups or even secondary crashes, especially during peak commute times. Our own maintenance force avoids working in the corridor at peak commute time for a similar reason. The corridor

does have several "Slower Traffic Keep Right" signs but we do depend on motorists to know and obey this rule. Sincerely,

Catherine Cutler Transportation Planner

Cc Jon Rees, Iowa DOT, Office of Location and Environment

Comment:

Level of Support:Leaning In FavorResponse Requested:Respond to me by e-mailComment:Thank you for providing your level of support for this project.

Date:04/05/2018Response Type:e-mailResponse By:Cathy CResponse:Thank you for providing your level of support for this project.

Comment:

Level of Support: Leaning In Favor Response Requested: Do not send me a response Comment: Concern that additional lane miles added result in increased costs for maintenance and Snow/Ice removal

Comment:

Level of Support: In Favor Response Requested: Respond to me by e-mail Comment: Thank you for continuing to work on this important link in our corridor. Our company works in both Cedar Rapids and Iowa City areas and the traffic continues to increase. The timing of the increase to 6-8 lanes is important as the two areas continue to grow into one economic center. In the next 50 years the corridor will grow to be Iowas eastern hub with over 1 million residents in the 7 counties that use this roadway.

Date:04/05/2018Response Type:e-mailResponse By: Cathy CResponse:Thanks for your comments. We appreciate hearing support for our projects.

Comment:

Level of Support:Leaning In FavorResponse Requested:Do not send me a responseComment:If 8 lanes are seen as needed in the future, why not do that now since you will
be reworking the strech now.

Comment:

Level of Support:NeutralResponse Requested:Respond to me by e-mailComment:I was able to sign in but there was no video of meeting two to view. I assumethis is on your end since I could sign in.

Date: 03/22/2018

Response Type: e-mail Response By: Jon R Response: Hello - if you are having issues viewing the video of the online meeting, here is a direct link: https://youtu.be/NJ3PyhE2YKE

Thank you!

Comment:

Level of Support: In Favor Response Requested: Respond to me by e-mail Comment: Thank you for your support.

Comment:

Level of Support: In Favor

Response Requested: Do not send me a response

Comment: Keep working on better ways for commuters to get to U of I. I have commuted since 2004. The daily clog has gotten worse. Need 3 lanes from CR to IC or commuter rail(CRANDIC) to U of I. Many just like me in Walford, Amana, Swisher, Ely. The corridor is packed with commuters. Make the round trip less than the UI charges for parking< less than 65.00/month. Then, you will have full trains. Must have drop off at Hospital for campus workers or within walking distance of any campus building. I was sent to east side of IC to work in an off campus clinic. Need rail service to Proctor and Gamble end of IC. Crandic?? To make this work.

Comment:

Level of Support: Less In Favor

Response Requested: Respond to me by e-mail

Comment: As residents of the Oak Ridge Lake Estates subdivision with lots and common areas that back up to I-380, we have some significant concerns about the proposed project location. Our subdivision is a loop with "main gate" and "back gate" entrances. The proposed project location not only takes over the back gate but a stretch of the road as well. This would leave us with just one way to get in and out of the subdivision. This is of concern for a number of reasons.

First, our dry fire hydrant to which the fire department hooks up to in order to draw water from our lake to fight fires is located nearest to the back gate. The approach the fire trucks take is angled in such a way that they come in the back gate and can drive right to where they need to be. In addition to the fire department using our lake for fires in our subdivision, they use it for fires in the general area as well.

Second, about half of the residents of our 33 lots are retirees with a higher potential of medical issues requiring an ambulance than the general population. Again, with just a single entrance to the subdivision, medical care could be delayed.

Third, our subdivision is very hilly. In the winter, our road can be very slick, making one way or the other the safer option to come and go from the neighborhood. By eliminating one of the options, there are times when people may not even be able to leave the subdivision due to icy roads (where they would if the other gate option still exists).

Fourth, living in a heavily wooded area, it is not uncommon for large trees to fall on our road during storms, blocking some neighbors from one of the entrances to our subdivision. Again, this is a situation where people would essentially be trapped until the fallen tree could be removed.

On a more personal level, our property backs right up to I-380. We certainly hear the traffic on the highway and have noticed an increase since we purchased our home in 2010. With the potential widening of 380 to six lanes, we anticipate even more noise issues. We would like to know what plans are in place for noise mitigation. Have sound barriers been discussed? What about strategically planting more trees as a potential dampener of noise? Has this issue been addressed because it will not only impact our personal enjoyment of our property, but it will decrease our property value to be even closer to 380 than we already are.

As President and Secretary of the Oak Ridge Lake Estates Homeowners Association, we not only have critical interest in the placement of this project as it impacts our personal property, but we have significant concerns about how it will impact our neighborhood as a whole. We would like to request a face-to-face meeting between representatives from our association and the DOT individuals responsible for the determination of the project location. We would like to ensure our concerns are heard and considered, and we'd like to learn more about how the project location area has been decided.

Date: 04/24/2018

Response Type: e-mail

Response By: Cathy C

Response: Thank you for writing to the Iowa Department of transportation about our study of I-380. First, I would like to explain that the area we have shown at public meeting is a study area and not an impact area should the interstate be expanded. We need to capture any issues in the corridor so our study are is much wider than the impact area to accomplish that task. We already have quite a bit of right of way in the corridor near your location so will know any actual physical impacts to your subdivision as we proceed with the study and pick a preferred alternative. Noise impacts are included in our study and should any mitigation be necessary that will be discussed in the study results. We have widened interstates in many areas and find that the noise levels do not necessarily or noticeably increase as we add lanes. If we do widen to the inside (median) some traffic will actually then be further away from the subdivision. I hope this response has helped explain our study. Should you have additional questions please feel free to contact us.

Comment:

Level of Support: Not In Favor

Response Requested: Respond to me by e-mail

Comment: This proposal considerably devalues our property at 1490 Trail Bend Dr NW, Swisher. Will we be compensated for encroachment on our subdivision? During the construction have you anticipated the extra wear on highway 965 by the 18 wheelers who routinely drive up and down this road?

We already have noise levels that are terribly high and now the proposed enlargement severely impedes access to our property in the Oak Ridge Lake Estate Subdivision.

Emergency access route through the rear gate of our subdivision is very important. It is also critical as there are fewer hills and curves through the rear access gate. I am 61 years old and my spouse is 62 years old and winter driving is difficult, rear access makes our home approachable. The rear access gate made this property attractive even we purchased it and we recently erected a picnic shelter, beach and boating area in this location. The terrain is hilly and difficult to access in the winter months from the front access gate.

Why not direct your effort along US Highway 218 and make that 4 lanes? This is a rural state, your 6 lane proposal in the corridor is environmentally irresponsible and you are only doing this because of corporate interests. What happened to the voice of rural people in

lowa? We don't even get highway 965 repaired and the bridge south of Swisher was only repaired on 965 because it was deemed near collapse. I feel sorry that as a 40 year resident of Johnson County my property is of little interest to this highway plan. I would recommend you go back to the drawing board.

Date: 04/24/2018

Response Type: e-mail

Response By: Cathy C

Response: Thank you for writing to the lowa Department of transportation about our study of I-380. First, I would like to explain that the area we have shown at public meeting is a study area and not an impact area should the interstate be expanded. We need to capture any issues in the corridor so our study are is much wider than the impact area to accomplish that task. We already have quite a bit of right of way in the corridor near your location so will know any actual physical impacts to your subdivision as we proceed with the study and pick a preferred alternative. Noise impacts are included in our study and should any mitigation be necessary that will be discussed in the study results. We have widened interstates in many areas and find that the noise levels do not necessarily or noticeably increase as we add lanes. If we do widen to the inside (median) some traffic will actually then be further away from the subdivision.

It is not our intent during construction to detour traffic to highway 965, rather we would build our project while maintaining traffic. Also, highway 965 is not under the jurisdiction of the lowa DOT so we are not responsible for repairs to that highway.

I hope this response has helped explain our study. Should you have additional questions please feel free to contact us.

Comment:

Level of Support: Not In Favor

Response Requested: Respond to me by e-mail

Comment: What about all the new home development along the CRANDIC railroad in the last 20 years? When purchasing we were all told that the CRANDIC would never be passenger rail as the line had not been used in 50 years and the cost was prohibitive. How often will the trains run and at what speed? As someone who owns a home along this railway, I am not for passenger rail. Our property values will drop. And our quality of life in our homes will be ruined by fast rail.

I do not believe enough people will ride a train to work. Why not create bus service first from North Liberty to Coralville and Iowa city and see if anyone would ride that? 380 will still need to be widened to meet the need for increased traffic from Cedar Rapids and I'm guessing it will be widened all the way to 80 either way.

Date: 05/03/2018

Response Type: e-mail

Response By: Cathy C

Response: Thank you for writing to the Iowa Department of Transportation. We are including alternative modes of transportation as a part of our study of the I-380 corridor. There is a separate study of the CRANDIC corridor that has moved into a third phase but that is limited to looking at passenger rail from North Liberty into Iowa City. As you noted, there are expensive track upgrades and modifications to intersections that would be needed to upgrade the CRANDIC line to handle passenger rail. They are also looking at lighter vehicles - more like trolleys - that could be used.

We are helping fund a rapid bus service from downtown Cedar Rapids to downtown lowa City that will run on 380 starting this fall as a part of mitigation efforts for the rebuild of the 80/380 interchange.

You can read more about our study of alternative modes of travel at: https://iowadot.gov/i380planningstudy/pdfs/I380-TechMemos-Alternative-Modes.pdf

Comment:

Level of Support: In Favor

Response Requested: Respond to me by e-mail Comment: Sorry! I overlooked this section the 1st time I attempted to comment. I wonder if it would be possible to study the potential for a dedicated-track High Speed Rail route between The Eastern Iowa Airport and both the City of Cedar Rapids and the Iowa City-Coralville area? This would also be near the proposed North terminus, just South of Highway US 30. It might require A spur line to the Airport?

Date: 07/30/2018

Response Type: e-mail

Response By: Cathy C

Response: Thank you for writing to the Iowa DOT with your comment. The possibility of passenger has been studied several times including with this current study. We have a technical memo relating to this issue on our website at:

https://iowadot.gov/i380planningstudy/home

and look for the alternative modes memo. In summary: •Development of I-380 improvements are necessary in the short-term horizon and future alternative transportation implementation will be considered a supplemental long-term option.

•Preservation of the Cedar Rapids and Iowa City (CRANDIC) corridor right-of-way as a public asset in the short-term horizon provides future opportunity.

•Phase CRANDIC corridor right-of-way alternative use to match demand; start with additional commuter rail study and potential implementation between central lowa City and North Liberty.

•Automated vehicle implementation best suited for first mile/last mile connections to commuter rail service in the CRANDIC corridor right-of-way.

•Commuter rail implementation within the existing corridor right-of-way is infeasible.

Comment:

Level of Support: In Favor Response Requested: Do not send me a response Comment: Duplicate

Comment:

Level of Support: In Favor

Response Requested: Respond to me by e-mail

Comment: One significant issue is the bottle neck that the bridge over I-380 at Penn Street in North Liberty, creates. Traffic is backed up significant distances in the morning and after work hours. There's also standing vehicles on I-380 northbound at the Penn street exit every day after work. Literally vehicles are stopped on the freeway and they try to get on the shoulder to let traffic go by on their left. It's a very dangerous situation.

Date: 09/04/2018

Response Type: e-mail

Response By: Cathy C

Response: Thank you for writing to us with your comments about the 380/Penn interchange backups. We are aware of and monitor the situation. The Penn interchange is a part of the current study and we are working with the City of North Liberty on a replacement interchange that will need to accommodate the growing traffic. We are expecting some

alleviation of this issue when the new interchange at Forevergreen Road opens next year (fall).

Comment:

Level of Support: Less In Favor Response Requested: Respond to me by e-mail Comment: We are very invested in this project as our land goes up to I-380. There was originally going to be a 3rd In-person public meeting slated for "Spring 2018." It doesn't appear that this meeting has taken place yet. Can you clarify and/or let us know when that meeting might be held?

Date: 08/31/2018

Response Type: e-mail

Response By: Jon R

Response: Thank you for your interest in this project. Correct, the in-person meeting has not taken place yet. The DOT is currently working on getting this meeting scheduled, which will likely be in late October. We will be sure to send you an email once the date and time have been determined. Also, please feel free to checkout the study website for additional information concerning the study.

Thank you!

Date: 10/1/2018 Response Type: e-mail Response By: Jon R

Response: Hello, just want to follow-up. The public meeting for the I-380 Planning Study is Tuesday, October 23, 2018 between 5 and 6:30 p.m. at the North Liberty Recreation Center, 520 W. Cherry Street, in North Liberty. The public meeting will be conducted utilizing an open forum format. Iowa DOT staff will be present to discuss the project informally. Interested individuals are encourage to attend to express their views and ask questions about the planning study. No formal presentation will be made. More information is available on the planning study website, which is periodically updated as new information becomes available. If you are not able to attend this meeting, information and materials presented will be available online at the project website: www.iowadot.gov/I380PlanningStudy Thank you!

Comment:

Level of Support:In FavorResponse Requested:Do not send me a responseComment:Six lanes is definitely a need!

Comment:

Level of Support: In Favor

Response Requested: Do not send me a response

Comment: These presentations are useful and well done. I do feel, however, that the overall planning process would benefit from projecting the kinds of community development (and potential re-development) might impact demand as well as need. Counter-intuitively, increasing the need for travel within the area could make some of the more sustainable solutions (like rail) more financially practical and reduce the pressure on roadways. Creating an extension of U of I in Cedar Rapids, for example, could benefit the institution, the communities involved and the transporation planning process.

Comment:

Level of Support: Neutral Response Requested: Do not send me a response Comment: There are no federal NRCS easement encumbered properties in this proposed area. A GIS layer of our closed and recorded easements is available on our NRCS website.

Comment:

Level of Support: In Favor

Response Requested: Do not send me a response

Comment: Thank you for the continued focus on this important regional issue. The Eastern Iowa region is at a tipping point in growth and economic and transportation impact. The I-380 improvements are needed now for safety and growth sooner than later. The idea of other forms of transportation are interesting but major metro growth around the US is still facilitated by auto transportation.

Comment:

Level of Support: In Favor

Response Requested: Do not send me a response

Comment: I completely agree with the General Conclusions and Recommendations in the PES, page PES-ii. I am especially pleased to see an honest and objective analysis and conclusion regarding transportation alternatives. As usual, very good work by the IDOT and in this case its contractor in developing these professional, objective studies.

Comment:

Level of Support: In Favor

Response Requested: Do not send me a response

Comment: I am most interested in the Wright Brother Blvd and I-380 intersection. This ramp has become very busy and congested and numerous times of the day. I believe it is in need of improvement to better serve the existing truck stops, airport, State certified Super Park and the Alliant Energy Mega Park.

Lastly, keeping the WBB ramp accessible during any construction will be critical.