



## MEETING NOTICE

**MPOJC Urbanized Area Policy Board  
Wednesday, September 19, 2018 – 4:30 PM  
City of North Liberty – Council Chambers  
1 Quail Creek Circle, North Liberty, IA**

## AGENDA

- 1. Call to Order**
  - a. Recognize alternates
  - b. Consider approval of meeting minutes
  - c. Set next Board meeting date, time and location (November 14th, tentatively hosted by Coralville)
- 2. Public Discussion of any item not on the agenda\***
- 3. Transportation Planning**
  - a. Public Hearing and consideration of an amendment to the FY18-21 MPOJC Transportation Improvement Program (TIP) – adding transit vehicles for replacement
    - i. Public Hearing
    - ii. Consider an amendment to the FY18-21 MPOJC Transportation Improvement Program
  - b. Discussion regarding Surface Transportation Block Grant (STBG) and Transportation Alternative Program (TAP) scoring criteria for funds allocated by MPOJC
  - c. Discussion regarding potential Federal Functional Classification changes for MPOJC Urbanized Area roadways
  - d. Update on CRANDIC passenger rail and rails-to-trails studies
  - e. Update from the MPOJC citizen representative to the East Central Iowa Council of Governments
  - f. Update from North Liberty staff on significant community projects
- 5. Other Business**
- 6. Adjournment**

**Attachment:** Letter from Iowa City Mayor to DOT Director regarding I-380 expansion

*\*Public input is permitted on any agenda item during discussion of the item. Please indicate to the Chair if you wish to comment. To request any disability-related accommodations please contact MPOJC staff at 356-5230 or kent-ralston@iowa-city.org prior to the meeting.*

MINUTES

MPOJC Urbanized Area Policy Board

**PRELIMINARY**

Wednesday, July 18th, 2018 – 4:30 PM

Johnson County Health and Human Services Building, Second Floor Conference Room

855 S. Dubuque St, Iowa City, IA

MEMBERS PRESENT: Coralville: Meghann Foster  
 Iowa City: Pauline Taylor, Rockne Cole, John Thomas, Eleanor Dilkes, Susan Mims  
 Johnson County: Mike Carberry, Lisa Green-Douglass  
 North Liberty: Terry Donahue, Chris Hoffman  
 Tiffin: None  
 University Heights: Dotti Maher  
 University of Iowa: Jim Sayre  
 ICCSD: Lori Roetlin

STAFF PRESENT: Kent Ralston, Brad Neumann, Emily Bothell

OTHERS PRESENT: Greg Parker - Johnson County Engineer, Newman Abuissa - Iowa DOT

1. CALL TO ORDER

Donahue called the meeting to order at 4:30 p.m.

a. Recognize alternates

Eleanor Dilkes served as an alternate for Kingsley Botchway (Iowa City) and Dotti Maher served as an alternate for Louise From (University Heights).

b. Consider approval of meeting minutes

Motion to approve was made by Carberry; Sayre seconded. **The motion was unanimously approved.**

c. Set date of next meeting

The next meeting was tentatively scheduled for Wednesday, September 19th, hosted by North Liberty.

2. PUBLIC DISCUSSION OF ANY ITEM NOT ON THE AGENDA\*

Green-Douglass asked whether the cost of Phase III of the Passenger Rail Study included the costs from the Rails-to-Trails study. Ralston explained that the Rails-to-Trails study is an auxiliary study with a separate scope and fee from the passenger rail study. Ralston also noted that he had sent an email to the administrative offices of each entity asking for funding for the both the passenger rail and trails studies combined. Green-Douglass expressed concerns with conducting the two studies simultaneously without considering right-of-way next to the rail and the potential for it to cancel out the effects of the original study.

Ralston clarified the difference between the two studies, explaining that the trail study came out of discussions between the University, the Convention and Visitor’s Bureau, and the City of Iowa City without involvement of the MPO originally. Ralston explained that the trail study was an alternative to the rail study in case MPOJC entities decided not to add passenger rail

in the near future. The trail study focuses on the feasibility of removing rail and adding a bike trail, including determining ownership and other legal needs.

Green-Douglass then asked how the amounts each entity would pay was determined.

Ralston explained that just with the prior studies, the Iowa DOT would pay for one-third of the costs, CRANDIC would pay for another third, with MPOJC entities making up the rest of the funding for the rail study. The trail study is funded at the local level, with funding asked of the University, Iowa City, Coralville, Johnson County, and North Liberty. Tiffin and University Heights, two communities with the least to gain from the studies, have not been asked to help fund either study.

### 3. TRANSPORTATION PLANNING

#### a. Public Hearing and consideration of resolutions of adoption and certification for the FY2019-2022 MPOJC Transportation Improvement Program.

##### i. Staff presentation of the FY2019-2022 MPOJC Transportation Improvement Program

Neumann informed the group that this was the annual Transportation Improvement Program (TIP) for FY2019-2022. At the last meeting, the Board approved the draft TIP list for surface transportation and transit projects. All projects funded in FY18 but not completed or under contract in that time have been moved to FY19 with 4% added to the total costs for inflation. The University Heights' Melrose Avenue project has also been included under FY22, along with North Liberty's Highway 965 project as awarded by the Board last spring. All Iowa DOT projects within the TIP service area are also included through the request of the DOT. All projects under contract with the DOT have been removed. Changes to the FAST Act last year delayed TAP funding awards until this coming winter. Neumann also reminded the Board that they opted out of the federal-aid-swap so all projects follow federal guidelines as in the past.

Neuman reported that a public notice for the TIP was posted thirty days in advance of the meeting and agencies identified in the public input process were informed. With no comments submitted, staff is requesting approval of the final FY2019-2022 TIP.

Hoffman asked how set in stone the projects in the TIP were due to potential timing issues.

Neumann replied that the projects are programmed in certain target years. While they can be completed later, it is hard to coordinate them sooner because an entity typically must move an existing project in the TIP to a later year.

Hoffman then asked how the projects were timed.

Neumann replied that the MPO funds new projects every two years. The projects are scored and ranked and presented to the Board for approval. The Board can adopt the projects as scored or they can move the projects around if they choose. After the Board approves the funding amounts, the MPO programs the funding amount into the two-year slot in the TIP but cannot program more than what is targeted each year by the Iowa DOT. Advanced construction is possible with approval from the Iowa DOT, but is rare. However, Coralville was able to do this with the 1<sup>st</sup> Avenue project after being awarded two rounds of funding in two consecutive years. Ralston added that the grant process was competitive, with only about half of requested projects being awarded funding in a given cycle. Additionally, to facilitate project completion, the MPO has historically awarded about 60% of project expenses rather than the 80% allowable, with agreements from the city administration to fund the rest of the project. Ralston also echoed Neumann's point about advanced funding being rare, with only two occurrences in the past decade, and both with

funding awards in two consecutive funding cycles. Hoffman expressed concern about Highway 965 being funded so far out and having more phases to complete.

ii. Public Hearing for the FY 2019-22 Transportation Improvement Program

Donahue opened the floor to public comment. With no comment, Donahue closed the public hearing.

iii. Consider a resolution adopting the FY2019-2022 Transportation Improvement Program for the Iowa City Urbanized Area and authorizing the MPO Chairperson to sign associated documents contained therein.

Carberry moved to approve; Mims seconded the motion. **The motion was approved unanimously.**

iv. Consider a resolution certifying compliance with federal requirements for conducting the urban transportation planning process in the Iowa City Urbanized Area

Hoffman moved to approve; seconded by Green-Douglass. **The motion was approved unanimously.**

b. Consider Performance Measure Target Setting for the MPO as Required by the Federal Highway Administration

The Federal Highway administration now requires that performance measure targets be approved each year. Ralston reminded the Board of the additional performance measure requirements, and introduced pavement and bridge targets as well as system performance and freight targets as outlined in the memo. This includes Highways 218, 6, and 1 as part of the National Highway System. For each measure the Board has two options, either to approve the state targets and discuss how the Board is supporting those as outlined in the TIP and the Long-Range Transportation Plan, or the Board can set its own quantifiable targets. MPOs only need to set four-year targets as outlined in the second column in the document. Currently MPO targets aren't scrutinized by the federal government, but the DOT's are, and this is subject to change. As with the safety targets, there are no current penalties for not meeting the targets or aligning the projects in the TIP but this is subject to change as targets are typically set with incentives or penalties. Due to the uncertainty in reporting requirements, time constraints and potential penalties, staff recommends adoption of the DOT targets. Should the Board approve the state's targets, the Board can revisit the targets on an annual basis and if an incentive is found to setting the Board's own targets, the Board can do so at that time. The Transportation Technical Advisory Committee agreed that the requirements were unclear and that they would recommend adopting the state's targets.

Cole asked if there were any other systems in place to evaluate programs.

Ralston replied that the MPO has targets for safety and congestion in its criteria for project approval in the Long-Range Transportation Plan. Donahue asked if the MPO was requesting any action. Ralston replied that the MPO was simply looking for a consensus. Membership verbally agreed to follow the state targets.

c. Update from Johnson County staff on significant transportation projects

Parker provided a handout listing projects approved by the Board of Supervisors, known as the five-year construction program. The documents show the year each project is programmed, Iowa DOT identifiers, cost estimates, average annual daily traffic for the roadway segment, and the length of the project. Project 18a, the Mehaffey Bridge Trail is

under delay due to unforeseen soil circumstances regarding retaining walls; however, the project is still expected to finish before winter. Project 18b, the Ely Road segment between Highway 382 and North 140<sup>th</sup> Street, is expected to finish on time. 18c, Highway 965 Phase 2, is experiencing delays due to the additional requirements of the Iowa DOT to pave beyond the railroad tracks about 60 feet to meet federal requirements.

Parker noted that the Swan Lake project is scheduled to be completed within the next 30 days and the County has multiple smaller bridge projects going on, including a reinforced concrete box project on Manor Road north of Highway 965 which is expected to be completed in the next 45 days. Straw Bridge Road is a fall letting. Bids were accepted for the Rapid Creek Road project and the County is working with the contractor to get that underway. Oak Crest Hill Road, a project that has been on the list for several years, construction was completed in time for RAGBRAI. IWV Road (18J) is under construction with plans to start paving in September. Highway 923 in front of the Johnson County Fairgrounds is in the design stages with work set to begin next summer.

Ralston added that the County can apply for and does receive MPO funds for projects within the growth boundary, with the County receiving funds for the Mehaffey Ridge Road project. Carberry commented that there have been lots of complaints about Curtis Bridge Road because those living south of Shueyville need to use it to go north through Shueyville for access the rest of the county. The supervisors have been working with Shueyville, who is responsible for the road, to have the County pave the road and then turn it over to the City. Green-Douglass noted that twice in her two years on the Board, the County has moved up bridge projects due to poor conditions, including on Highway 965. Parker replied that the County tries to keep bridges maintained as efficiently as possible. Carberry added that Johnson County is fortunate to have a growing tax base as many Iowa counties are shrinking and cannot replace roads due to lack of funds. Parker noted that the County has 959.5 miles of roads and 230 bridges to maintain.

d. Update from DOT District 6 Staff on I-380 & I-80 corridor projects

Abuissa reported that the Forevergreen Road interchange is under construction with ramp grading to finish this year and paving to occur next year. Iowa DOT is also working on Highway 965 and the interchange with Interstate 80, adding turn lanes and adding capacity with plans to finish by the end of the year. The paving of shoulders on Highway 6 between Tiffin and Coralville is complete and the section of Highway 6 between Clear Creek and the Iowa City corporate limits is almost complete. The Iowa DOT is also working cooperatively with Iowa City to improve Governor Street between Burlington Street and Dodge Street with work beginning on the north section this week. The final project in Iowa City is on Highway 6 to Riverside Drive with curb repair, patching, and repaving. The Myrtle Avenue and Riverside Drive intersection is also underway as the contractor is adding turn lanes and traffic signals, with plans to complete by the end of this construction season.

The I-80/I-380 interchange is underway with utility work and brush removal occurring now. Construction work will begin in 2019, including the relocation of Kansas Avenue in Tiffin. Paving of Forevergreen ramps will also be let later this month. A more detailed schedule of the project through 2024 can be found on the Iowa DOT website. The Iowa DOT is trying to accelerate the project by applying for an infrastructure grant from the federal government. The Iowa DOT is expecting about \$50 million for project acceleration.

The Iowa DOT is also working with the City of Coralville on potential changes to the 1<sup>st</sup> Avenue and I-80 interchange so that construction can begin once the funds become available. I-380 between I-80 and just north of Forevergreen Road will be expanded to 6 lanes, with an environmental study underway for expansion of I-380 to six lanes to Highway 30 in Cedar Rapids. Additionally, the Iowa DOT is looking at I-80 as a major thoroughfare between Iowa City and the Mississippi River and will expand I-80 between

Highway 1 and West Branch from four lanes to six lanes beginning in 2021.

Carberry asked if the DOT planned to expand I-80 across the state to three lanes. Abuissa replied that Iowa City to the Mississippi River is the only stretch currently planned, though the state is studying a potential statewide expansion right now. Sayre commented about the back-up of traffic on the I-380 Interchange with Penn Street. Abuissa replied that the Iowa DOT is looking at the whole stretch between I-80 and Highway 30, including the bridges. Sayre then asked about the status of the bus service between Iowa City and Cedar Rapids. Abuissa deferred to Neumann, who reported that the service will be set by October with routes running every 30 minutes during peak times. The route fare was set at \$3.50 per ride.

Hoffman asked about the timing of the final I-380 study. Abuissa replied that the study is scheduled to be completed within the next year. Thomas asked about the funding for the I-80/I-380 interchange. Abuissa replied that the cost is about \$370 million, coming from state and federal sources, plus a \$50 million federal grant. The I-380/Forevergreen Road interchange is a \$25 million project. Carberry remarked on the expense of the bridge and the fast-moving traffic. Abuissa noted that there are over 8,000 trucks and 49,000 vehicles daily at this location with projections expected to increase in the next decade.

#### 4. Other Business

Ralston informed the Board that Iowa City Council member Kingsley Botchway had resigned from the Iowa City City Council and would no longer serve on the MPOJC Board. Ralston thanked Botchway for his service.

#### 5. Adjournment

**The meeting was adjourned at 5:36 PM.**



Metropolitan Planning Organization of Johnson County

Date: September 12, 2018

To: MPOJC Urbanized Area Policy Board

From: Brad Neumann, Assistant Transportation Planner

Re: Agenda item #3(a): Public Hearing and consideration of an amendment to the FY2018-FY2021 MPOJC Transportation Improvement Program (TIP) - adding transit vehicles for replacement

i. Public Hearing

The Transportation Improvement Program (TIP) is the programming document for all surface transportation projects that receive state or federal funds, including street and highway, transit, rail, bicycle, and pedestrian projects in the Iowa City urbanized area. MPOJC submits the TIP annually to the Iowa Department of Transportation (Iowa DOT) to document the status of local transportation projects using state and federal funds. To utilize these funds, projects must be included in the TIP with an accurate scope and identified funding sources.

ii. Consider an amendment to the FY2018-2021 MPOJC Transportation Improvement Program

The Iowa DOT has requested an amendment to the adopted MPOJC FY2018-2021 TIP. The DOT requests the following amendment:

**Amend the FY2018-2021 TIP to add three heavy-duty (40') buses for replacement. This will allow the three buses to be eligible for grant funding through the Iowa DOT. This includes one bus (#637U) for Iowa City Transit and two buses (#82 and #83) for University of Iowa Cambus.**

All three of these buses are included in the approved FY2019-2022 TIP (approved at your July 18, 2018 Board meeting), but for grant eligibility purposes these buses must also be included in the FY2018-2021 TIP as required by the Federal Transit Administration.

On September 12, the Transportation Technical Advisory Committee unanimously recommended approval of the TIP amendment. Please be prepared to consider approval of the TIP amendment.

If you have questions or comments, please contact me at 356-5235 or by email at [brad-neumann@iowa-city.org](mailto:brad-neumann@iowa-city.org).

cc: Kent Ralston



Date: September 13, 2018  
To: Urbanized Area Policy Board  
From: Kent Ralston, Executive Director  
Re: Agenda Item #3(b): Discussion regarding Surface Transportation Block Grant (STBG) and Transportation Alternative Program (TAP) scoring criteria for funds allocated by MPOJC

MPOJC grant applications for Surface Transportation Block Grant (STBG) and Transportation Alternative Program (TAP) funding will be made available in February 2019. Per our normal practice, we wanted to provide an opportunity for the Policy Board to review the adopted STBG and TAP scoring criteria prior to initiating the grant application process.

The scoring criteria were last revised and approved by the Urbanized Area Policy Board for use in scoring the 2017 STBG grant applications. The adopted criteria were also used to score and rank projects found in the fiscally constrained projects list in the revised MPO Long Range Transportation Plan (LRTP) adopted in May 2017. Because inclusion of projects in the LRTP is one of several requirements for projects to be funded with STBG or TAP funding the adopted scoring criteria were purposefully aligned with the LRTP scoring criteria to more explicitly demonstrate a connection between the 'guiding principals' of the LRTP and projects that are awarded MPOJC grant funds.

At their September 12 meeting, the Transportation Technical Advisory Committee recommended the following minor changes to the adopted scoring criteria (attached):

- **Criteria 1A. Economic Opportunity** – increase points as supporting economic opportunity is important for our growing community.
- **Criteria 3A. Quality of Life** – increase points as there is an emphasis on quality of life in the recently adopted Long Range Transportation Plan.
- **Criteria 5B. Efficiency** – provide the same number of points for projects in corridors with projected future congestion as those with existing congestion.
- **Criteria 7C. Safety** – increase points for projects with documented safety issues.
- **Criteria 9B. Equity** – decrease points as most projects will necessarily include work to correct ADA compliance issues.
- **Criteria 10. Local Commitment** – increase points for projects with more than a 40% local match so federal funding can be stretched further.

While staff supports the recommended modifications within each criterion, staff does not recommend changing the adopted criteria as they are consistent with and support the 'guiding principals' in the recently adopted LRTP (attached).



Please be prepared to discuss the scoring criteria for use in the pending 2019 STBG and TAP grant applications. Should the Policy Board direct staff to make changes to the scoring criteria, we will provide a draft for approval at your November meeting. Please keep in mind that the Policy Board is not required to award funding based solely on project scores.

I will be available at your September 19 meeting to answer any questions you may have.

# FY21-22 SURFACE TRANSPORTATION BLOCK GRANT & TRANSPORTATION ALTERNATIVES PROGRAM - SCORING CRITERIA

MPOJC Policy Board Approval November 16, 2016

## 1: Economic Opportunity – Supports metro area growth, innovation, job creation, and productivity

- A. Project improves/provides direct access to planned growth area, existing jobs, or retail **+1**
- B. Project involves more than one MPO jurisdiction **+1 each (Points Possible: 7)**

**Total Points Possible: 8**

**Score: \_\_\_\_\_**

## 2: Environment\* – Preserves and protects our natural resources, including land, water and air quality

- A. Project promotes air quality improvements via congestion reduction through one or more of the following: Geometric improvements (physical improvements that improve motorist operations), ITS/signalization improvements, Reduction of Vehicle Miles Traveled (VMT), Improvement to turning movements **+1 each (Points Possible: 4)**

**Total Points Possible: 4**

**Score: \_\_\_\_\_**

## 3: Quality of Life – Enhances livability and creates vibrant and appealing places that serve residents throughout their lives

- A. Project directly enhances safe route(s) to school, or improves transportation choices for locations specifically serving multi-family developments or elderly populations **+1**

**Total Points Possible: 1**

**Score: \_\_\_\_\_**

## 4: System Preservation – Maintained in good and reliable condition

- A. Maintenance or improvement to existing facility/infrastructure **+5**

**Total Points Possible: 5**

**Score: \_\_\_\_\_**

## 5: Efficiency – Builds a well-connected transportation network and coordinating land use patterns to reduce travel demand, miles travelled, and fossil fuel consumption

- A. Project in a corridor with existing congestion (defined as having LOS E or F during peak hours according to the adopted MPO Travel Demand Model) **+5**
- B. Project in a corridor with forecasted future congestion (defined as having LOS E or F during peak hours according to adopted MPO Travel Demand Model, LOS map is attached) **+7**

**Total Points Possible: 12**

**Score: \_\_\_\_\_**

## 6: Choice – Offers multi-modal transportation options that are affordable and accessible

- A. Project is on existing bus route (bus route map is attached) **+3**
- B. Separated trail or wide sidewalk (8' or wider) **+3**
- C. Project reduces modal conflict (pedestrian hybrid beacons, grade separation, dedicated bicycle lanes or sharrows, bus pull-off, etc) **+3**

**Total Points Possible: 9**

**Score: \_\_\_\_\_**

## 7: Safety – Designed and maintained to enhance the safety and security of all users

- A. History involving two or more documented bicycle or pedestrian collisions in the last five years (collision maps are attached) **+7**

B. Top 25 highest MPO accident locations or top 10 highest accident mid-blocks in last three years (accident tables are attached) **+7**

**OR**

C. Sight distance or related safety issue documented by an expert (planner/engineer) **+5**

**Total Points Possible for A&B: 14**

**OR**

**Total Points Possible for C: 5**

**Score: \_\_\_\_\_**

**8: Health** – *Invites and enhances healthy and active lifestyles*

A. Project extends regional trail network (map is attached) **+3**

B. Project addresses critical gap in the regional trail network **+5**

**Total Points Possible: 8**

**Score: \_\_\_\_\_**

**9: Equity** – *Provides access and opportunity for all people and neighborhoods*

A. Project improves transportation network in lower-income neighborhoods **+3**

B. Focus of the project is to correct ADA non-compliance **+5**

**Total Points Possible: 8**

**Score: \_\_\_\_\_**

**10: Local Commitment** – *Gauges local commitment to the project including local and/or state funds pledged*

A. Local match 20.1% - 30% **+1**

B. Local match 30.1% - 40% **+2**

C. Local match 40.1% - 50% **+3**

D. Local match 50.1% - 60% **+4**

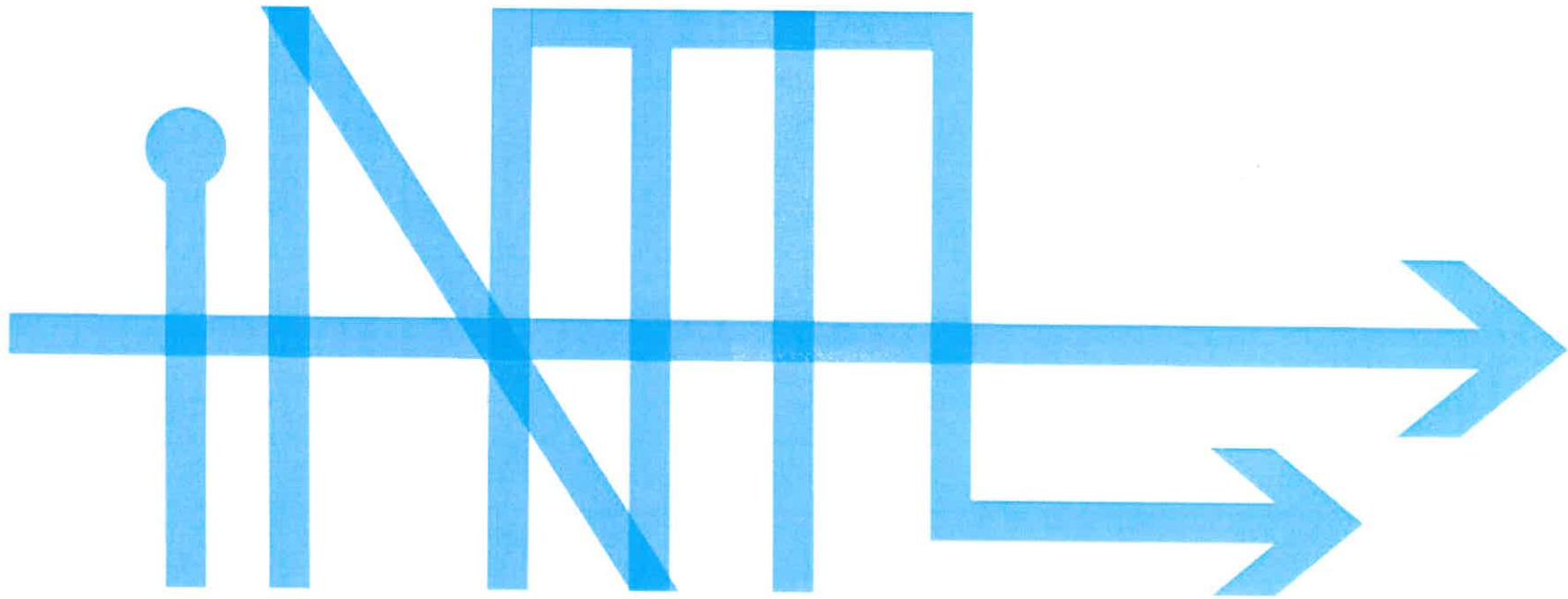
E. Local match 60.1% - or more **+5**

**Total Points Possible: 5**

**Score: \_\_\_\_\_**

**Total Score: \_\_\_\_\_**

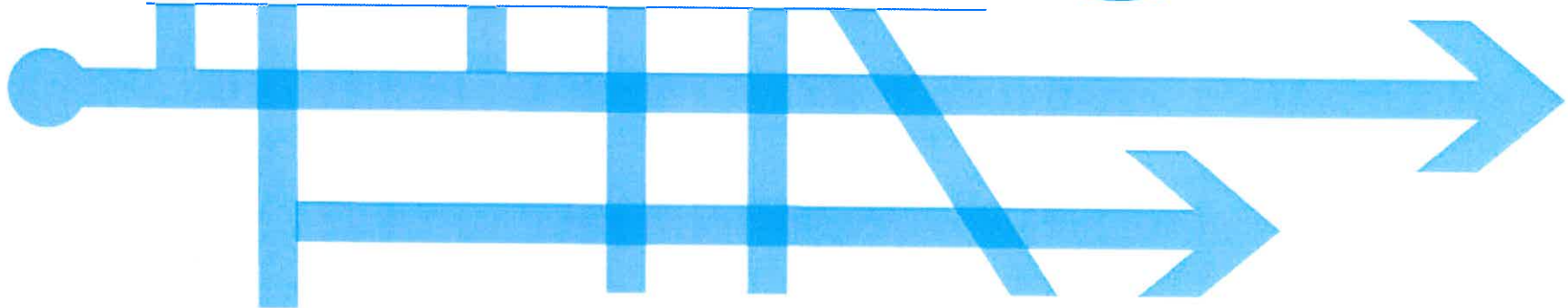
\*Not used to score Transportation Alternatives Program projects



METROPOLITAN PLANNING ORGANIZATION OF JOHNSON COUNTY

# FUTURE FORWARD

2045 LONG RANGE TRANSPORTATION PLAN



# GUIDING PRINCIPLES



## The Metro Area Transportation Network:

- 500 miles of roads
- 24 miles of Interstate highway
- 29 miles of state highway
- 66 miles of arterial streets
- 333 miles of local roads
- 36 miles of rail line
- 414 miles of transit routes
- 70 miles of separated trails or wide sidewalks (side paths) in Johnson County
- 6 miles of bike lanes

With more than 1,600 physicians and dentists and more than 9,200 non-physician staff members, the UIHC are a major employer in the metro area. Annually, more than 35,000 patients are admitted to the hospital. This is in addition to more than 900,000 clinic visits at the main campus and outreach clinics located throughout the metro area. All this activity presents a significant challenge for transportation, including parking and transit.

Source: <https://uihc.org/basic-facts>

### GUIDING PRINCIPLE #1

## Economic Opportunity

### Supports growth, innovation, job creation, and productivity

An efficient, reliable, and accessible transportation network is an essential component for fostering economic opportunity—one that connects suppliers with producers; businesses with workers and customers; and people with employment centers, education, and services. A true multi-modal transportation network, where all modes of transportation are considered and provided, ensures the flexibility to support a variety of industries and businesses while providing a ladder of opportunity for residents seeking employment.

In many ways, the transportation system in the Iowa City Urbanized Area performs very well. Geographically, the region benefits from being situated at the crossroads of Interstates 80 and 380, Highway 1, and Highway 6. Our metro area is also served by several longstanding railways that currently serve industrial areas but are also ideally located to offer future passenger service between major employment centers, medical facilities, and educational institutions in the corridor. In addition, local efforts have produced one of the most heavily utilized public transit systems in the country (ridership per capita) as well as a robust biking and pedestrian culture.

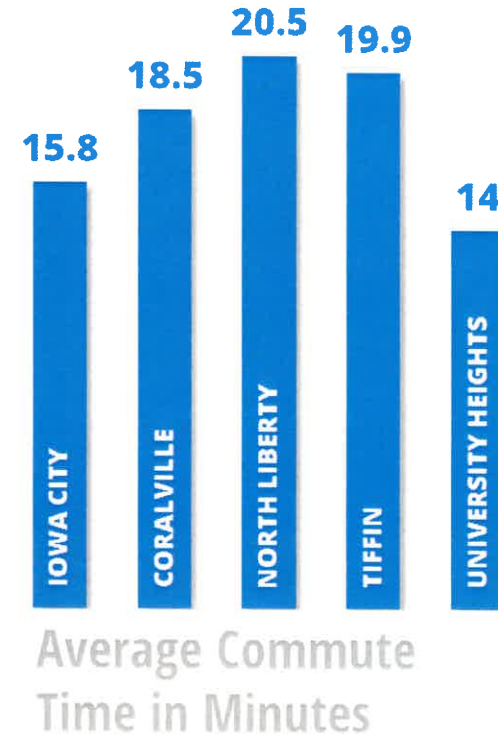
When compared with peer communities, the region boasts minimal congestion on roadways as shown by very low delays per auto commuter – at 25% less than the national average [2015 American Community Survey]. Maintaining minimal road congestion, and providing access to job centers of the future will be a key component of ensuring economic opportunity throughout the region for both commuters and freight alike.



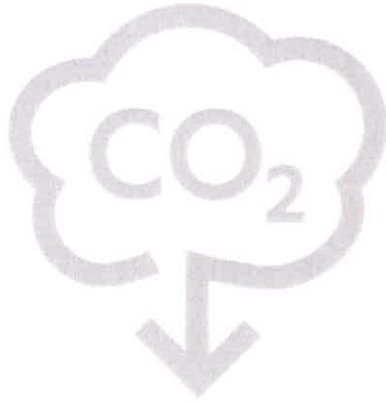
### Strategies to Enhance Economic Opportunity:

- Focus transportation dollars to areas of greatest need
- Direct investments towards areas that encounter significant congestion
- Encourage use of intelligent transportation technologies and efficient intersection design to improve corridor efficiency
- Employ strategies that improve multi-modal access to employment centers
- Perform transportation engineering evaluations upon request to aid in maximizing efficiency at spot locations
- Facilitate the annual Traffic Signal Timing program and provide updated signal timing recommendations at least once every five years

PERFORMANCE MEASURE	DEFINITION	DESIRED TREND	BASELINE
Travel time to work	Average travel time to work	Decrease ↓	18.5 minutes
Transit access to employment	Percent of metro employees within 1/4 mile of transit route	Increase ↑	93%



Many Metro Area communities enjoy lower average commute times to work when compared with the state (18.8 minutes) and national (24.8 minutes) averages.



## Land Use Patterns and Carbon Emissions

Substantial reduction in VMT can be achieved through land use changes alone. Compact development can reduce the need to drive by 20-40% , as compared with traditional suburban development patterns, resulting in a 7-10% reduction in CO<sub>2</sub> transportation related emissions by 2050.

The term “compact development” does not imply high-rise or even uniformly high density, but rather higher average “blended” densities. Compact development also features a mix of land uses, development of strong population and employment centers, interconnection of streets, and the design of structures and spaces at a human scale.

Source: “Growing Cooler: The Evidence for Urban Development and Climate Change.” Urban Land Institute. R. Ewing, et. al. (2007)

### GUIDING PRINCIPLE #2

## Environment

Preserves and protects our natural resources, including land, water, and air

While pollutant emissions from motor vehicles have dropped dramatically over the last three decades, air quality problems remain a concern in metropolitan areas, in part due to growth in VMT. Research has linked air pollution with public health problems and led the U.S. Environmental Protection Agency (EPA) to establish lower thresholds for acceptable levels of air pollution. On a global scale, climate change has focused attention on the environmental impacts of the transportation sector, which contributes more than 25% of our nation’s greenhouse gas (GHG) emissions.<sup>1</sup>

Transportation, land use, and development patterns have a significant impact on our environment. While the MPO has prioritized preserving and improving existing transportation infrastructure to address congestion and safety issues, the long-range plan considers more broadly how to minimize these conflicts as the metro area grows.

How we use our land impacts the type and design of transportation infrastructure and determines the feasibility of travel modes. While it is important to recognize differences in local and regional land use and economic development objectives, coordinating land use with transportation goals is an essential step in addressing many environmental concerns.

- Using land efficiently conserves farmland and environmentally sensitive areas, such as wetlands and woodlands that absorb and filter stormwater, reduce localized flooding and its impacts, and provide opportunities for recreation and scenic views that enhance quality of life and economic development in our communities.
- Encouraging compact development with well-connected street patterns that accommodate pedestrians and bicyclists helps to reduce travel demand by reducing the length and number of trips necessary to meet daily needs and by allowing people more options in how they travel.
- Mixed use development at appropriate locations can reduce travel times and distances for residents to access their daily needs.
- Locating residential areas near destinations like employment centers, schools, and daily shopping can reduce the length and number of trips.

<sup>1</sup> (Source: U.S. DOT Transportation and Climate Change Clearinghouse <https://climate.dot.gov/about/transportations-role/overview.html>.)



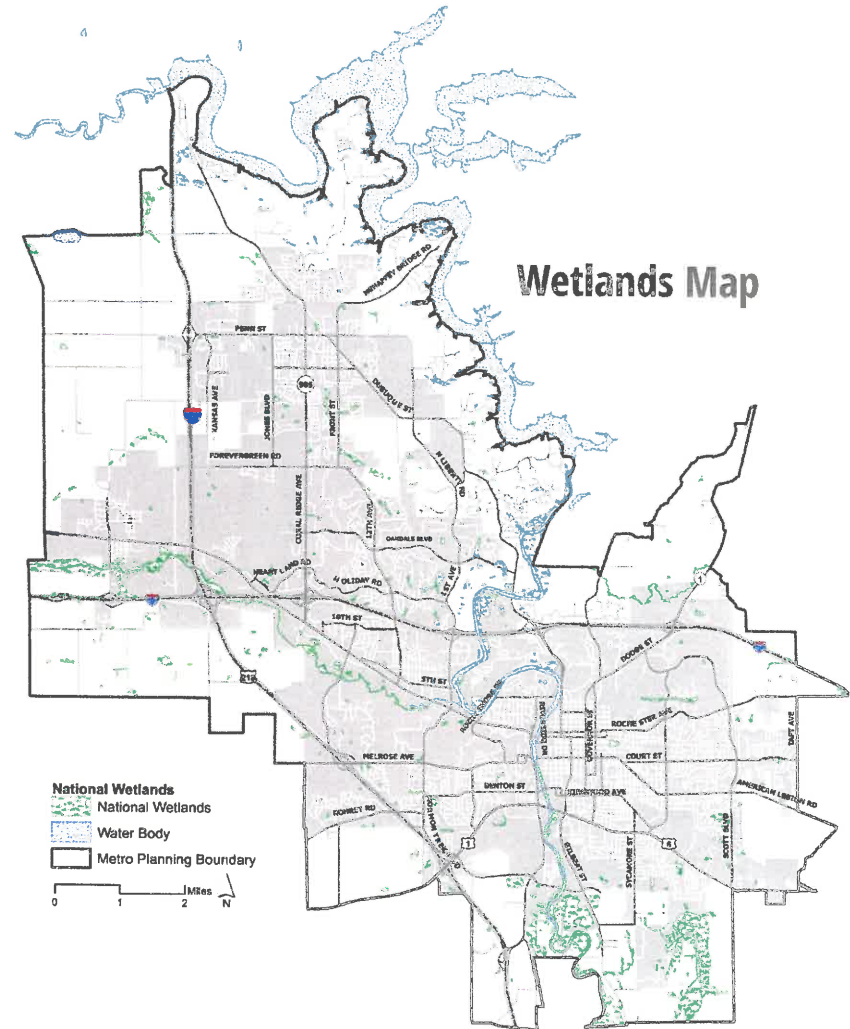
Attention to the natural and social environment should be demonstrated during transportation project development. Projects included in the LRTP are often years away from final design; therefore detailed environmental review may not be feasible at the early stages of the planning process. However, the MPO can identify potential impacts to natural and historic resources which can help ensure that transportation projects have minimal impacts on the environment.

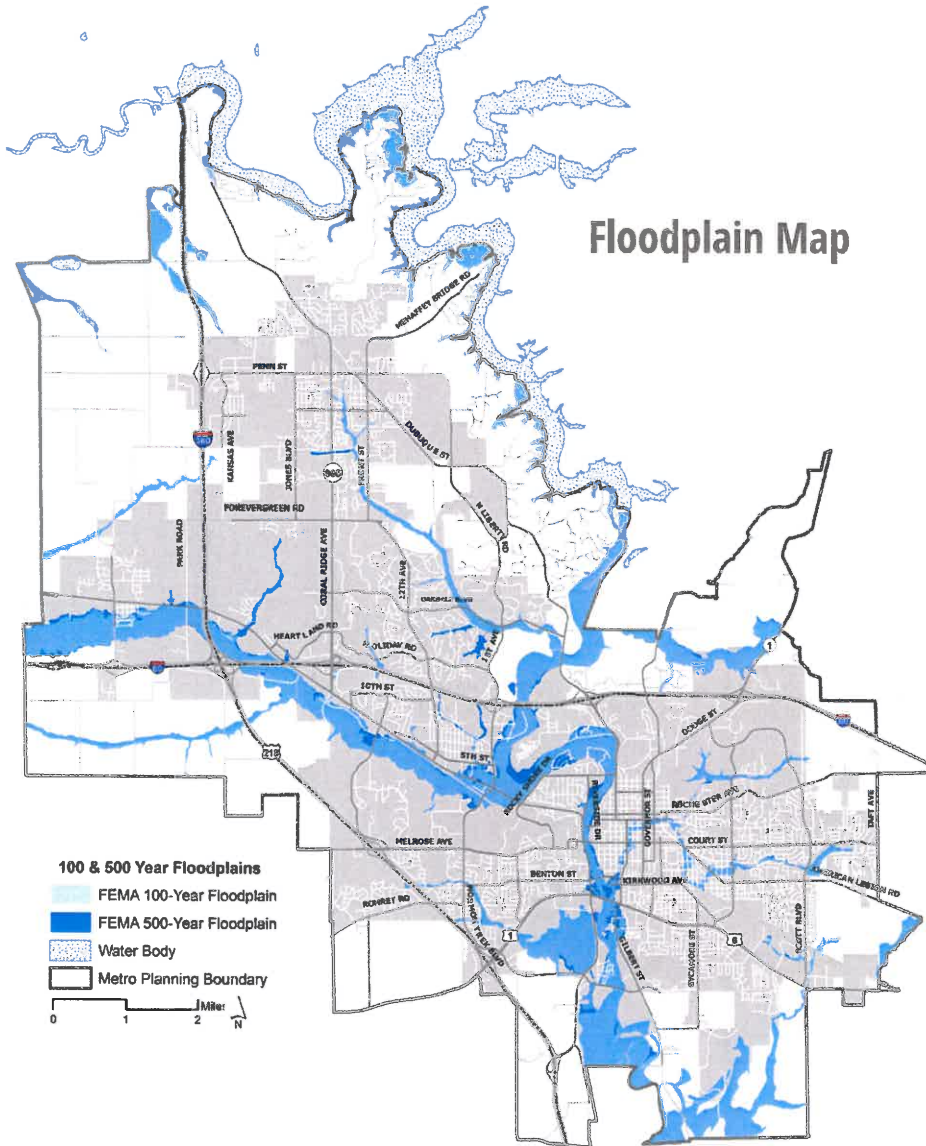
### Environmental Consultation

Federal code outlines requirements for MPOs regarding environment consultation. During project development, MPOJC encourages its member entities to strive to avoid or minimize any detrimental effects that transportation projects may have on the environment. The MPO encourages member entities to follow the steps used to define mitigation in 40 CFR 1508.20, which are:

1. Avoid the impact altogether by not taking a certain action or parts of an action
2. Minimize impacts by limiting the degree or magnitude of the action and its implementation
3. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment
4. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action
5. Compensating for the impact by replacing or providing substitute resources or environments

Avoiding negative impacts to the environment should always be a primary goal during project implementation. When this cannot be achieved, minimizing impacts and compensating for those impacts that cannot be avoided can help to ensure that negative environmental externalities are factored into the costs of a project.





To help understand potential environmental impacts of transportation projects, MPOJC consults with the following local, regional, and statewide organizations which have an interest in environmental issues in our area:

- Iowa Department of Natural Resources
- Johnson County Soil and Water Conservation
- Iowa Valley Resource Conservation and Development
- Iowa State University Extension and Outreach
- Iowa City Sierra Club
- Johnson County Environmental Advocates
- Iowa Corps of Engineers
- Johnson County Heritage Trust



### Environmental Justice

To ensure that local transportation projects/policies adhere to the principals of environmental justice as directed in Executive Order 12898, the maps on pages 13 and 51 (reference median household income and non-white population map page numbers) illustrate social and environmental factors that will be considered during the development of transportation projects. These figures provide general information; more detailed investigations of specific project impacts will be analyzed during the project-level studies and subsequent national EPA processes.

### Strategies to Safeguard the Environment:

- Avoid impacts to environmentally sensitive features, such as woodlands and wetlands, early in the planning process when planning for and designing and building new infrastructure.
- Expand context sensitive and sustainable solutions in the planning and design of transportation infrastructure.
- Continue to monitor National Ambient Air Quality Standards thresholds for fine particulate matter (PM 2.5) and improve air quality when possible.
- Reduce pollution emissions, including CO<sub>2</sub>.
- Integrate land use and economic development goals with transportation planning. Encourage and support land use plans and policies to enhance overall transportation efficiency, including compact and mixed use development.
- Follow adopted MPO “Complete Streets” Policy.



Improvements to 5th Street in Coralville included green infrastructure to filter stormwater.

PERFORMANCE MEASURE	DEFINITION	DESIRED TREND	BASELINE
VMT	Metro Area vehicle miles traveled	Decrease ↓	660,194 (1000's of miles)
Housing density	Metro area housing units per acre	Increase ↑	1.4
Air quality	Annual average concentration of PM 2.5 in Johnson County	Decrease ↓	9.3-9.6 (EPA annual standard = 12)

### Long Range Transportation Plans should include:

“Discussion of the types of potential environmental mitigation activities and potential areas to carry out these activities, including activities that may have the greatest potential to restore and maintain the environmental functions accepted by the metropolitan transportation plan. This discussion may focus on policies, programs, or strategies, rather than at the project level. The discussion shall be developed in consultation with Federal, State, and Tribal land management, wildlife, and regulatory agencies.”

Source: Federal Code section 23 CFR Section 450.322



### GUIDING PRINCIPLE #3

## Quality of Life

Enhances livability and creates vibrant and appealing places that serve residents throughout their lives.

Transportation affects the daily life of every resident in the metropolitan area. When poorly designed, transportation infrastructure can act as a barrier, isolating neighborhoods and limiting access to community destinations, including schools, parks, and recreation. As a result, travel may require more time and expense than is necessary. On the other hand, a well-designed and coordinated transportation network can enhance all travel modes, allowing residents to fully participate in the social and economic life of their neighborhood and community regardless of their economic status or physical ability.

The ease and comfort with which people are able to move through their community or neighborhood has benefits that are difficult to quantify. Streets that are attractive and safe for all users, encourage social interaction, build neighborhood cohesion, and contribute to the physical health and well-being of residents. Context sensitive designs and aesthetic enhancements foster a sense of identity and safety that attracts investment. Low stress travel routes with few conflict points and reliable speeds can determine whether the commute to and from work or daily errands is a frustrating or pleasant experience.

As the metropolitan area grows and travel needs evolve, we must invest wisely to ensure that the infrastructure of today has the flexibility to serve the needs of tomorrow. Planning for infrastructure investment should consider the unique needs of the community while reflecting a vision for how the community hopes to grow. We want our transportation dollars to generate jobs, housing, and business opportunities, but to do so we must ensure safe, reliable, clean, and healthy travel experiences for everyone. In this way we can enhance the quality of life in our metropolitan area.

### Metro Priorities

1. Improve or expand transit routes/options.
2. Add more sidewalks/trails/ ADA accessible routes.
3. Reduce congestion/travel times on roadways.
4. Provide more on-street bike facilities.
5. Provide carpooling/vanpooling options.

The information above represents selected results from on-line surveys posted by the MPO/C (January-March 2016). A total of 1,271 responses to the General Transportation survey were received along with 215 responses to the Private Vehicle Survey. Results are not statistically significant.



Walking school bus for Lincoln Elementary School in Iowa City. Courtesy Iowa City Press Citizen

### Strategies to Enhance Quality of Life:

- Promote projects that enhance connections between existing neighborhoods, jobs, and local services.
- Provide accessible, safe, and low-stress solutions in all transportation modes.
- Promote more transportation choices to enhance each person's quality of life.
- Reduce combined housing and transportation costs by encouraging coordinated land use and transportation planning.
- Provide more transit training for transit users to increase ridership and access.
- Promote mobility technology.
- Implement supportive services that encourage personal responsibility.
- Continue to incorporate safety issues in transportation planning for all modes.
- Continue to support Complete Streets designs and recommendations.
- Provide pedestrian-friendly streets and recreational trails.
- Build with seniors and children in mind.
- Support efforts in areas with high growth/high density development potential that justify transportation infrastructure investments.

PERFORMANCE MEASURE	DEFINITION	DESIRED TREND	BASELINE
Travel delay to work	Annual hours of delay per auto commuter	Decrease ↓	6 hrs / yr
Trail access	Percentage of metro area within 1/4 mile of trail system	Increase ↑	80%



Bike to Work Week is an annual event supported by MPO communities that encourages people to commute to work by bicycle and to raise awareness of area trails and bicycle facilities.



### Costs rise as road conditions decline

Allowing the lane-mile to deteriorate and then making major repairs more than doubles the cost of that lane-mile over 25 years.

### Costs rise as the road network expands

Each new lane-mile constructed will require regular maintenance and preservation treatment for its entire lifetime. The more lane-miles a system has, the higher the overall maintenance costs. In addition to maintaining the surface pavement, additional miles of road also increase costs for snow removal, restriping, and other operational aspects that keep a roadway functioning.

#### GUIDING PRINCIPLE #4

## System Preservation

Maintain the existing facilities in good and reliable condition

Across the Iowa City Urbanized Area, deficient bridges and deteriorating pavement impact thousands of trips made every day. Recent trends (FY07-FY17) indicate that the region is funding reconstruction and capacity improvements of existing roads compared to new construction by a factor of 4:1. This emphasis on the reconstruction of roadways has set the bar for future investments as our existing system ages. In order to continue to invest in repair and preventative maintenance of roadways, the Future Forward 2045 plan identifies strategies that focus on the planning, maintenance, and financing of the area's transportation system and equipment to ensure it remains in good and reliable condition.

With scarce funding and an aging system, it is more important than ever to focus on advancing the existing system through repair and preventative maintenance by maximizing results from each dollar spent. Rehabilitating a road that has deteriorated is substantially more expensive than keeping that road in good condition. According to the American Association of State Highway and Transportation Officials, every \$1 spent to keep a road in good condition avoids \$6-\$14 to rebuild the same road once it has deteriorated significantly.



Reconstruction of First Avenue for grade separation under the Iowa Interstate Railroad.

## Strategies to Ensure System Preservation

1. Effectively manage and maximize existing transportation assets by prioritizing rehabilitation and replacement of aging infrastructure over system expansion.
2. Focus investment on roadways with the highest traffic volumes.
3. Establish achievable pavement condition targets.
4. Ensure investments are adequate to improve bridge and pavement conditions, keep transit fleet in good state of repair, and maintain bicycle and pedestrian facilities.
5. Include cost-benefit analysis when evaluating future road investments.

PERFORMANCE MEASURE	DEFINITION	DESIRED TREND	BASELINE
Bridges	Percent of bridges (IDOT, County, & City) in Johnson County rated as being deficient	Decrease ↓	20.0% (2015)
Pavement Condition Index	Percent of pavement measured at fair or better condition	Increase ↑	93% (2014) State/Federal
		Increase ↑	70% (2013) Local Federal Aid Routes

## Job creation

Repair and preservation projects create opportunities for a variety of workers, require less spending on land acquisition, and get through the planning and permitting phases more quickly. These factors put more people to work faster.

## Savings to drivers

Vehicles get better gas mileage traveling on smooth roads, and go farther on a single tank of gas. Smooth roads are also gentler on tires and suspensions, reducing repair costs.



## Costs to drivers

Allowing roadways to deteriorate and remain in poor condition has a cost to individuals as well. Vehicle owners pay as much as \$746 annually in additional vehicle operating costs in areas with a high concentration of rough roads, more than twice the annual cost for the average American driver.

Source: American Association of State Highway and Transportation Officials (AASHTO) and The Road Information Project. (2009). "Rough Roads Ahead: Fix Them Now or Pay for It Later." <http://roughroads.transportation.org/>



## Complete Streets Policy

“Complete Streets” are rights of way designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists, and transit riders of all ages and abilities.

MPOJC’s Complete Streets policy, which was strengthened in 2015, applies to projects funded with federal Surface Transportation Block Grant (STBG) and Transportation Alternative funds and is part of the evaluation for all road projects. The stated goals of the policy are:

1. Creating a comprehensive, integrated, and connected transportation network that supports compact, sustainable development, and creates livable communities.
2. Providing a connected network of facilities accommodating all modes of travel.
3. Identifying opportunities to repurpose rights-of-way to enhance connectivity for all modes to commercial, recreation, education, public services, and residential destinations.

## GUIDING PRINCIPLE #5

### Choice

#### Offer multi-modal transportation options that are affordable and accessible

An integrated and comprehensive network of pedestrian and bicycle facilities help to expand transportation choice and complement transit services. Though a majority of residents may choose private motor vehicles for most of their daily trips, nearly everyone relies on other modes to meet some of their needs, whether it is walking to a bus stop or neighborhood park; catching a bus to school, work, or special events (such as Hawkeye sports); or accessing a trail system for recreation.

For individuals who do not own or have limited access to a private vehicle, these facilities are invaluable. For low-income residents, affordable and efficient transportation options are a stepping stone to economic opportunity. For people with disabilities, transportation choice allows for full participation in community life. For children and youth, a sizeable but often overlooked part of the population, choice allows for independent access to schools, libraries, parks, and other activities.

Time and convenience are the primary factors that influence how most people travel. It follows that transportation choice is greater in areas where development is relatively compact and destinations that serve residents’ daily needs are nearby (e.g. schools, employment, shopping, parks). While housing density is essential for efficient transit services, a safe and comfortable pedestrian network is essential to enable access to alternative transportation.



The reconstruction of 5th Street in Coralville includes new mixed-use development and a streetscape designed with transit, pedestrian, and bicycle facilities.

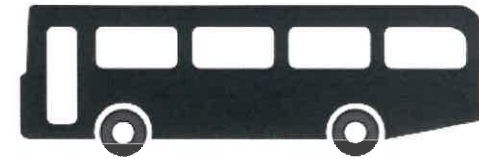


### Strategies to Ensure Transportation Choice:

1. Ensure compliance with the MPO Complete Streets Policy and Americans with Disabilities Act (ADA) requirements.
2. Coordinate land use with planning to optimize multi-modal transportation, focusing investment in areas adjacent to compact and mixed use development.
3. Enhance access to activity centers (e.g. commercial areas, schools, parks and recreation, and employment centers) by ensuring transit service and safe, low-stress pedestrian routes and bike facilities are available.
4. Assist communities with achieving Bike Friendly and Walk Friendly status as well as implementation of Safe Routes to School projects.
6. Follow FHWA, National Association of City Transportation Officials (NACTO), and AASHTO best practices when planning and developing.

PERFORMANCE MEASURE	DEFINITION	DESIRED TREND	BASELINE
Mode Split	Percentage of workers commuting via walking, biking, transit, or rideshare	Increase ↑	14.9% (2015)
Facilities	Miles of roadway that include bike lanes	Increase ↑	6.2 miles
	Percentage of roadway miles that do not include sidewalks	Decrease ↓	13 miles

### Future Forward 2045 General Transportation Survey (2016)



**50%** of respondents would like to ride the bus more often.

**34%**

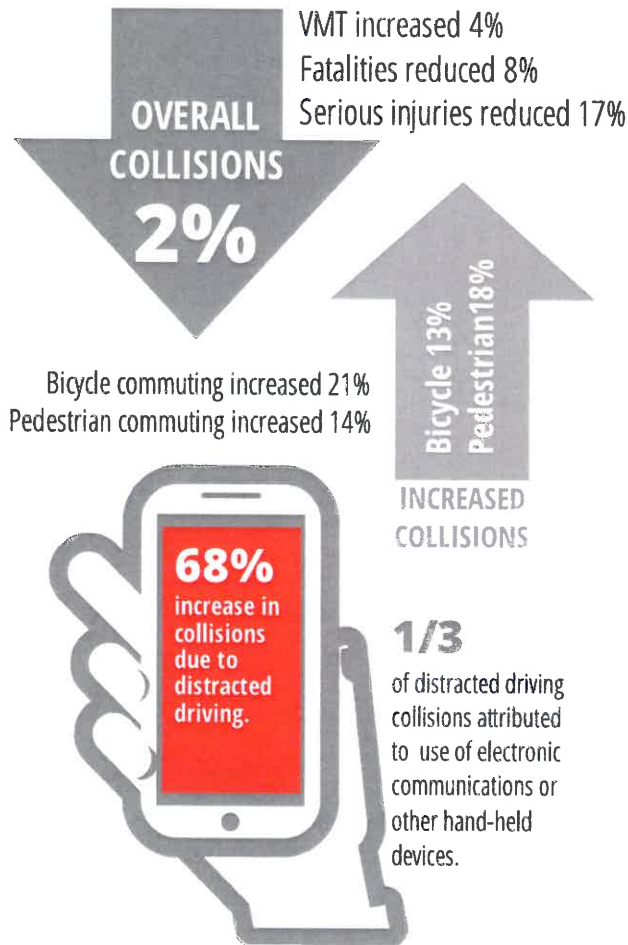
would like to commute by bike more often.



Travel time and convenience are the top criteria for choosing how to travel to work.

# Metro Area Collisions

2006-2010 and 2011-2015 comparison



## GUIDING PRINCIPLE #6

### Safety

Transportation network designed and maintained to enhance the safety and security of all users

The safety of motorists, bicyclists, and pedestrians is a top priority in transportation planning. Motor vehicle collisions result in premature deaths, serious injuries, and are a cause of major economic losses and disruptions to the transportation system. Safety concerns can discourage residents from utilizing active transportation such as bicycling, walking, and transit.

Planning for transportation safety should be a comprehensive, system-wide, multi-modal process that integrates safety into surface transportation decision-making. MPOJC supports these processes through:

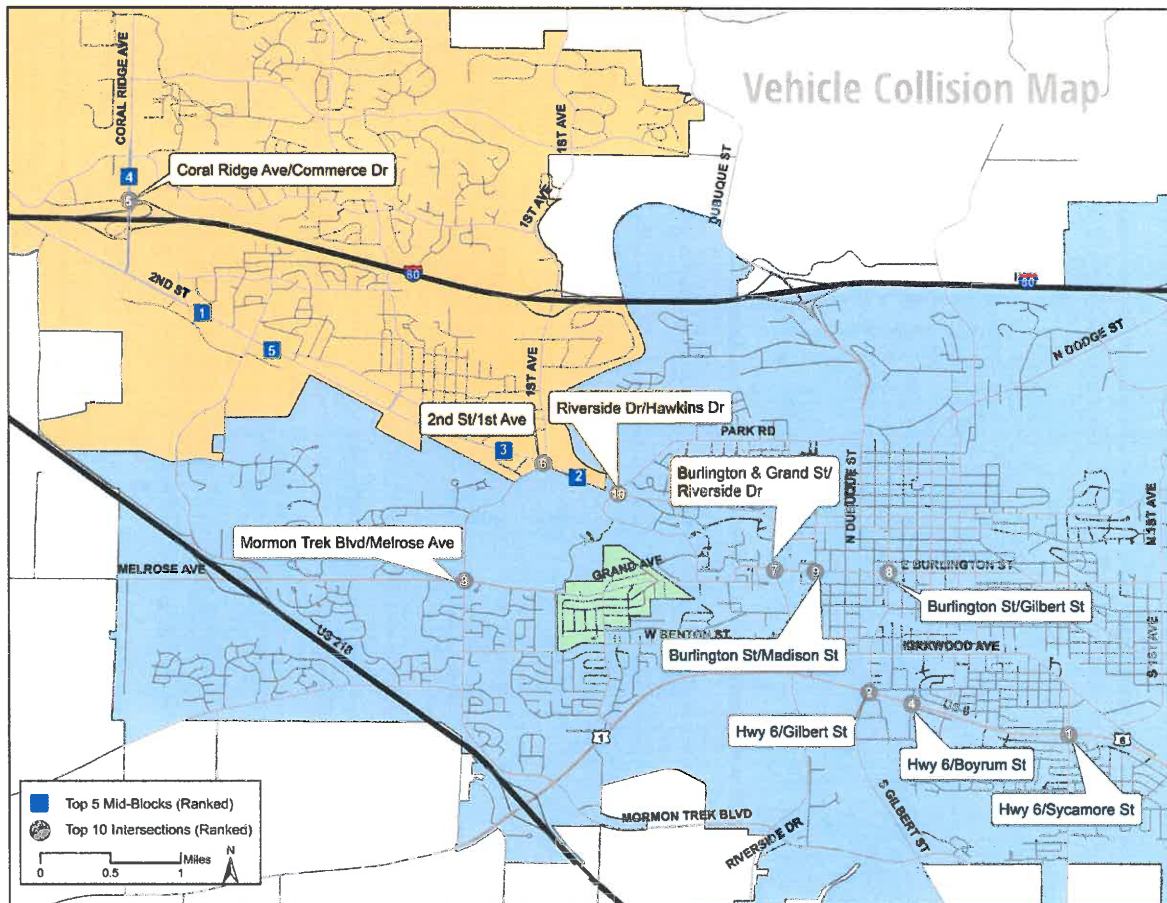
- Maintaining the metro collision report, which identifies problem areas and provides countermeasures
- Performing transportation engineering studies
- Conducting road safety audits
- Evaluating pedestrian and bicycle accommodations
- Inventorying ADA facilities
- Reviewing traffic signal timings and operations
- Assisting MPO entities with safety-related grant funding applications

Grant funding scoring criteria used by the MPO Urbanized Area Policy Board helps support safety initiatives, placing a greater weight on capital infrastructure projects that address documented safety issues.

#### Increasing Population and VMT

From 2010 to 2014, metro area population increased 12% while metro VMT increased by only 4%. Population growth is outpacing VMT growth as drivers are, on the whole, driving fewer miles and/or shifting trips to other modes of transportation. During the same period, overall collisions decreased by 2%, fatal collisions reduced by 8%, and serious injury collisions reduced by 17%.<sup>1</sup> The reduction in collision rate and severity could be attributed to a variety of factors such as infrastructure safety and efficiency improvements, intelligent transportation systems, in-vehicle technologies, and educational outreach campaigns.

<sup>1</sup> Iowa Department of Transportation SAVER: 2006-2010 and 2011-2015 comparison.



### Collision Trends

While the number of metro area collisions due to drug/alcohol impairment has remained relatively flat, distracted driving collisions in the metro area have increased 68%. Of the distracted driver collisions, 51% were caused by drivers under the age of 24. The increase in distracted driving collisions represents a major safety challenge and places drivers, passengers, and more vulnerable road users at an increased risk of serious injury or death.

### Highest Collision Intersections:

1. Highway 6 & Sycamore St (Iowa City)
2. Highway 6 and S Gilbert St (Iowa City)
3. Mormon Trek Blvd & Melrose Ave (Iowa City)
4. Highway 6 and Boyrum St (Iowa City)
5. Coral Ridge Ave and Commerce Dr (Coralville)
6. 2nd St and 1st Ave (Coralville)
7. W Burlington St/Grand Ave & S Riverside Dr (Iowa City)
8. E Burlington St & Gilbert St (Iowa City)
9. Burlington St & Madison St (Iowa City)
10. Riverside Dr & Hawkins Dr (Iowa City)

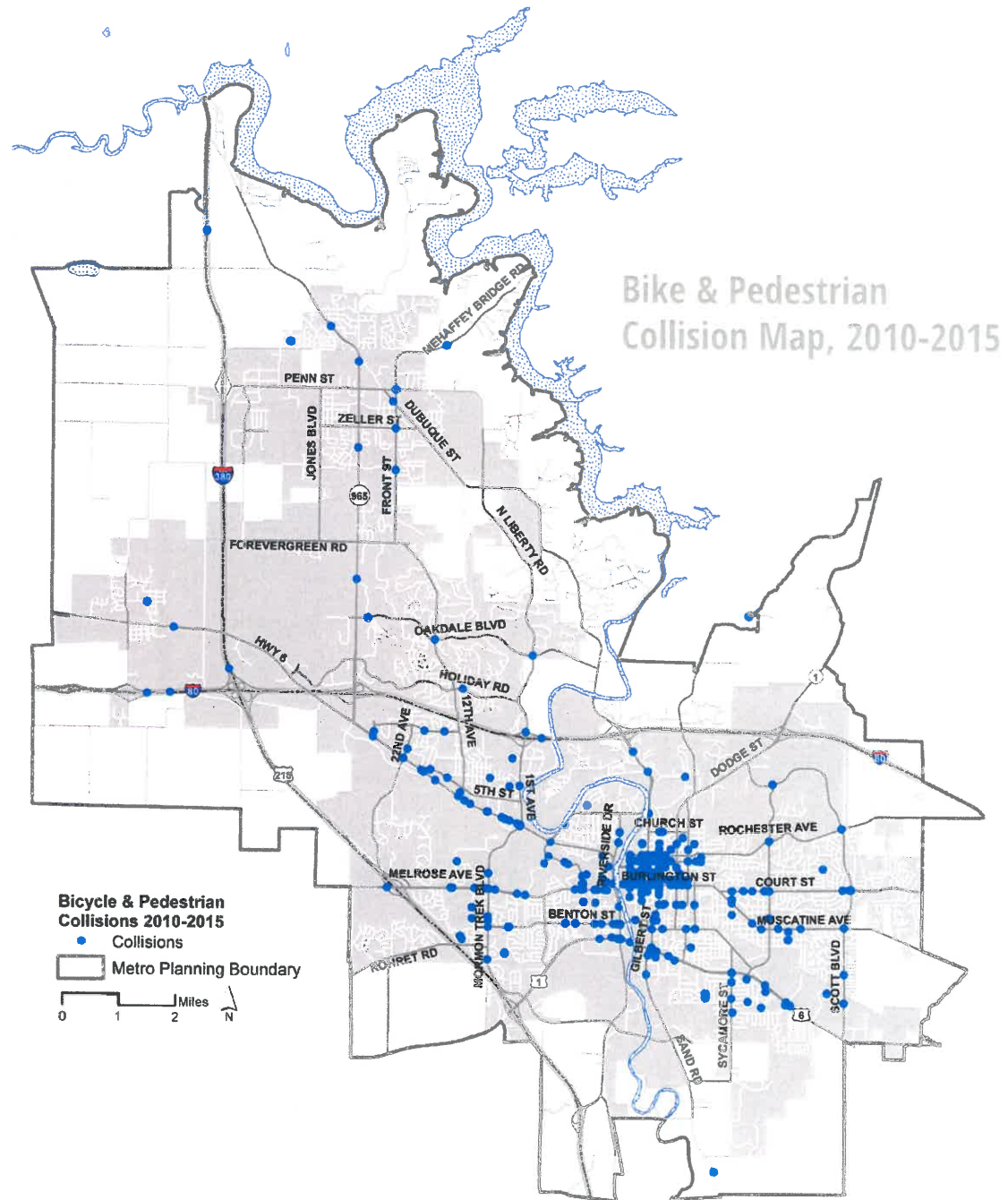
### Highest Collision Mid-Block Locations

1. 2nd St between 25th Ave & 23rd Ave (Coralville)
2. 2nd St between 1st Ave & Hawkins Dr/Rocky Shore Dr (Coralville)
3. 2nd St between 4th Ave & 1st Ave (Coralville)
4. Coral Ridge Ave between Commerce Dr & Holiday Rd/Heartland Dr (Coralville)
5. 2nd St between Camp Cardinal Blvd & 20th Ave (Coralville)

### Collision Trends

Bicycling, walking, and transit are becoming increasingly popular ways for residents to meet their transportation needs. Between 2011 and 2015, the number of bicycle commuters in the metro area increased 21%, pedestrian commuters increased 14%, and transit commuters increased 11%.

Although metro area collisions are trending down, there has been a 13% increase in bicycle collisions and 18% increase in pedestrian collisions. Between 2011 and 2015, four pedestrians were killed in collisions in the metro area. During the same time period there were no bicycle fatalities and only 5% of all bicycle crashes resulted in major injury (8 bicyclists).





Since Iowa first enacted a seat belt law in July of 1986, 6,766 people have escaped serious injury or death because prior to a crash, they chose to wear a seat belt.

PERFORMANCE MEASURE	DEFINITION	DESIRED TREND	BASELINE
Fatalities	Number of fatalities (5-year total)	Decrease ↓	24
	Rate of fatalities per 100 million vehicle miles traveled (VMT)	Decrease ↓	0.761
Serious Injuries	Number of serious injury accidents (5-year total)	Decrease ↓	127
	Rate of serious injury collisions per 100 million VMT	Decrease ↓	4.023
Nonmotorized Fatalities/injuries	Number of non-motorized fatalities/injuries (5-year total)	Decrease ↓	32
	Rate of non-motorized fatalities and serious injuries per 100 million VMT	Decrease ↓	1.016
Bicycle Collisions	Total Collisions	Decrease ↓	170
Pedestrian Collisions	Total Collisions	Decrease ↓	154

Iowa Department of Transportation SAVER: 5-Year Total, 2011-2015  
 FHWA Safety Performance Measures: <http://safety.fhwa.dot.gov/hslp/spm/safety-pm-fs.cfm>  
 Iowa Department of Transportation SAVER: 2006-2010 and 2011-2015 comparison.  
 Governors Traffic Safety Bureau

### Strategies to Improve Safety:

- Continue metro area collision reporting and recommend countermeasures.
- Provide transportation engineering services upon request to member entities.
- Provide information on top collision trends such as distracted or impaired driving, and incidents involving bicycles and pedestrians.
- Provide recommendations for facilities based on Statewide Urban Design Standards (SUDAS), FHWA, NACTO, and AASHTO best practices and design principles that have proven to be safe and reliable.
- Continue to produce road, pedestrian, and bicycle safety audits as requested by member entities.
- Assist the Policy Board in evaluating safety considerations during the grant funding process.
- Assist MPO entities in identifying and applying for safety related grant funds.
- Assist in development of Traffic Incident Management Plans.
- Partner with local and state agencies on safety education and outreach campaigns to address safety issues such as distracted and impaired driving.



Prior to the construction of the First Avenue railroad overpass in Iowa City, traffic congestion and delay was a significant issue along this important north-south corridor in Iowa City.

In 2014 4% of roads are congesting or significantly congested during peak hours.

In 2045 19% of roads are expected to be congesting or significantly congested if no additional capacity investments are made.

In 2045 17% of roads are expected to be congesting or significantly congested if investments are targeted towards areas of greatest need.

## GUIDING PRINCIPLE #7

# Efficiency

Builds a well-connected transportation network with coordinated land use patterns to reduce travel demand and delay, miles traveled, and energy consumption

An efficient transportation network is essential to support the economy and livability of our metro area. The ease with which people, goods, and services move across the metro area is perhaps the most perceptible hallmark of a healthy transportation system. An inefficient transportation network with excessive congestion, delays, indirect routes, and few transportation choices limits mobility, increases frustration for users, and increases costs in terms of time, delay, fuel consumption, and vehicle emissions.

Improving the efficiency of our transportation network should be a multi-faceted approach whereby we seek to promote shared mobility by improving access to transit, reducing barriers to active transportation such as bicycle and walking, promote land use patterns that support efficient movement of goods services, and making smart investments in infrastructure and intelligent transportation systems and efficient intersection design (e.g. roundabouts) to help traffic move more efficiently. Priorities should be given to transportation infrastructure projects that improve the efficiency of the existing network for vehicles, pedestrians, and bicycles.

### **Vehicular Traffic Congestion**

According to the 2014 MPOJC Travel Demand Model, the metro area has relatively few areas of major congestion: Level of Service (LOS) E or F. However, there are significant daily bottlenecks during peak travel periods along Coral Ridge Avenue and Highway 965 in Coralville and North Liberty, Penn Street in North Liberty, multiple interstate ramps along I-80 and Highway 218, and at major arterial intersections.

In 2014, approximately 4% of road miles are considered congesting or significantly congested (LOS D, E, or F). By 2045, we expect this number to increase to 19% if no additional capacity investments are made to the network. If investments are targeted to the areas where congestion is greatest, the metro area can reduce the miles of roadway that are congesting or significantly congested to 17% by 2045. For a more information on road network congestion please see the Road and Bridge Network chapter, beginning on page 60.



A roundabout at 12th Avenue and Holiday Road in Coralville has reduced congestion and travel delay at this busy intersection.

PERFORMANCE MEASURE	DEFINITION	DESIRED TREND	BASELINE
Congestion	Percentage of major road mileage at LOS of C or better at peak hours	Increase ↑	96.40%
Vehicle Miles Traveled	Local VMT per capita (annual, 1000's of miles)	Decrease ↓	5709 (2015)

Calculated using 2014 Travel Demand Model (existing roads).

### Strategies to Improve Network Efficiency:

- Encourage land-use patterns that support efficient movement of goods, services, and people to reduce travel times, fuel consumption, and vehicle emissions.
- Support multi-modal transportation by reducing obstacles for active transportation or shared mobility.
- Facilitate the annual review of metro area traffic signal timings to improve coordination and vehicle progression, thereby reducing travel times in key arterial corridors.
- Provide traffic engineering expertise including multi-modal LOS analyses to member entities upon request.
- Promote Intelligent Transportation Systems (ITS) technologies such as GPS-based advanced vehicle locators for metro wide transit (BONGO), traffic signal coordination, use of smartphone “apps” for multi-modal wayfinding, vehicle sharing, and route planning.
- Encourage telecommuting and staggered shift times to reduce peak hour road congestion.
- Provide metro area decision makers with systems-level road performance and LOS to help direct transportation investments to the areas of greatest need.
- Support incident management programs to speed the clearing of incidents.

# Why walk?

**78%** walk for health or exercise

## AESTHETICS

**75%** of respondents think walking in their neighborhood is a pleasant experience

## DESTINATIONS



## MULTI-MODAL

**16%** Regularly take the bus as part of their commute to work or school.

**23%** Occasionally take the bus as part of their commute

Source: MPOJC Future Forward 2045 online pedestrian survey.

### GUIDING PRINCIPLE #8

## Health

Invites and enhances healthy and active lifestyles

Historically, our transportation system was designed to move people and goods efficiently with little regard to the impact on community health. Today there is growing awareness across communities that transportation systems impact quality of life and health. Walkable, bikeable, and transit-oriented communities are associated with healthier populations that experience more physical activity, lower body mass index, lower rates of traffic injuries, and less air pollution<sup>1</sup>

The way cities are planned and designed is strongly associated with the resulting levels of physical activity and health on both individual and community levels.<sup>2</sup> In order to plan for a regional transportation system that invites and enhances healthy and active lifestyles, we look to build off of our multi-modal transportation options in order to generate active and motorized transportation systems that are safe, well-maintained, and provide connectivity to destinations. The region's transportation system influences public health through four primary ways:

- 1. Active Transportation** – People's participation in active transportation (walking, bicycling, and transit, to some degree) is influenced by the built and natural environment in which they live. Transportation networks that encourage active transportation with continuous and convenient sidewalks and crosswalks, bicycle facilities, and transit access can help people increase their level of physical activity resulting in health benefits and disease prevention.
- 2. Safety** – All road users should be safe with minimal risks of injury. Well-designed multi-modal transportation network designs that consider all users can reduce conflicts and improve safety.
- 3. Air Quality** – Air quality is an important component of transportation planning for communities, especially for at-risk groups including children and elderly persons. Increased numbers of vehicle trips and VMT are associated with higher levels of air pollutants resulting from vehicle emissions, which can negatively impact respiratory health.
- 4. Connectivity / Accessibility** – The transportation network should allow people to efficiently access the places they need in order to live a healthy and active lifestyle such as grocery stores, places of work, hospitals, recreation facilities, and schools.

1. 2010 American Public Health Association Transportation Fact Sheet.

2. 2006 "Obesity, Physical Activity, and the Urban Environment"; *Environmental Health*. Sept. 2006.





Ensuring safe routes to schools and ensuring that schools, parks, and recreation centers are well-served by a network of sidewalks, trails, and transit routes provides opportunity for youth to travel independently.

PERFORMANCE MEASURE	DEFINITION	DESIRED TREND	BASELINE
Physical activity	Percent of adults in Johnson County who are physically active	Increase ↑	17.6% (2013)
Seat belt use	Percent of adults reporting to always use seat belts	Increase ↑	86% (2013)

1. Physical Activity. 2013. Policy Map. [www.policymap.com](http://www.policymap.com)

2. Seatbelt Use. 2013. Policy Map. [www.policymap.com](http://www.policymap.com) (Dec. 2016)

### Strategies to Foster Health:

1. Promote active transportation through the creation of a safe and convenient transportation network throughout the region.
2. Prioritize infrastructure improvements near transit stops and public transportation facilities.
3. Encourage active lifestyles through way-finding signs, maps, and other educational materials.
4. Improve elements of the transportation network that are seen as unsafe such as the scarcity of sidewalks, crosswalks and bicycle facilities, in order to encourage active transportation and increase safety.
5. Reduce injuries associated with motor vehicle crashes through the improvement of roadway facilities and availability of transportation options.
6. Encourage active transportation to minimize air pollution from motor vehicles, and the fuels used to operate them.
7. Address transportation needs and prioritize critical gaps to ensure equity and comprehensiveness in efforts to enhance active living.
8. Ensure all people have access to safe, healthy, convenient, and affordable transportation options regardless of age, income, and other socioeconomic factors.

## Challenges to Mobility & Access

- 24% of Americans living in poverty do not own an automobile.
- Because low-income individuals are less likely to own a car, they are more likely to walk, wheel, or bike, even when conditions are not ideal.
- Low income and minority populations are less likely to live near or travel along roads with safe, accessible, and high-quality pedestrian and bicycle facilities.
- Low-income, minority, or immigrant individuals are more likely to have jobs that require them to commute outside of traditional '9 to 5' business hours, often in the dark and when or where transit services are not operating.
- Adults with disabilities are more than twice as likely as those without disabilities to have inadequate transportation (31% versus 13%).
- Children, older adults, and individuals with physical or cognitive disabilities may be unable to drive and are, more reliant on non-motorized travel modes.
- As individuals age, they are increasingly likely to depend on public transit for their primary transportation.

Source: 2014 National Household Travel Survey.

### GUIDING PRINCIPLE #9

## Equity

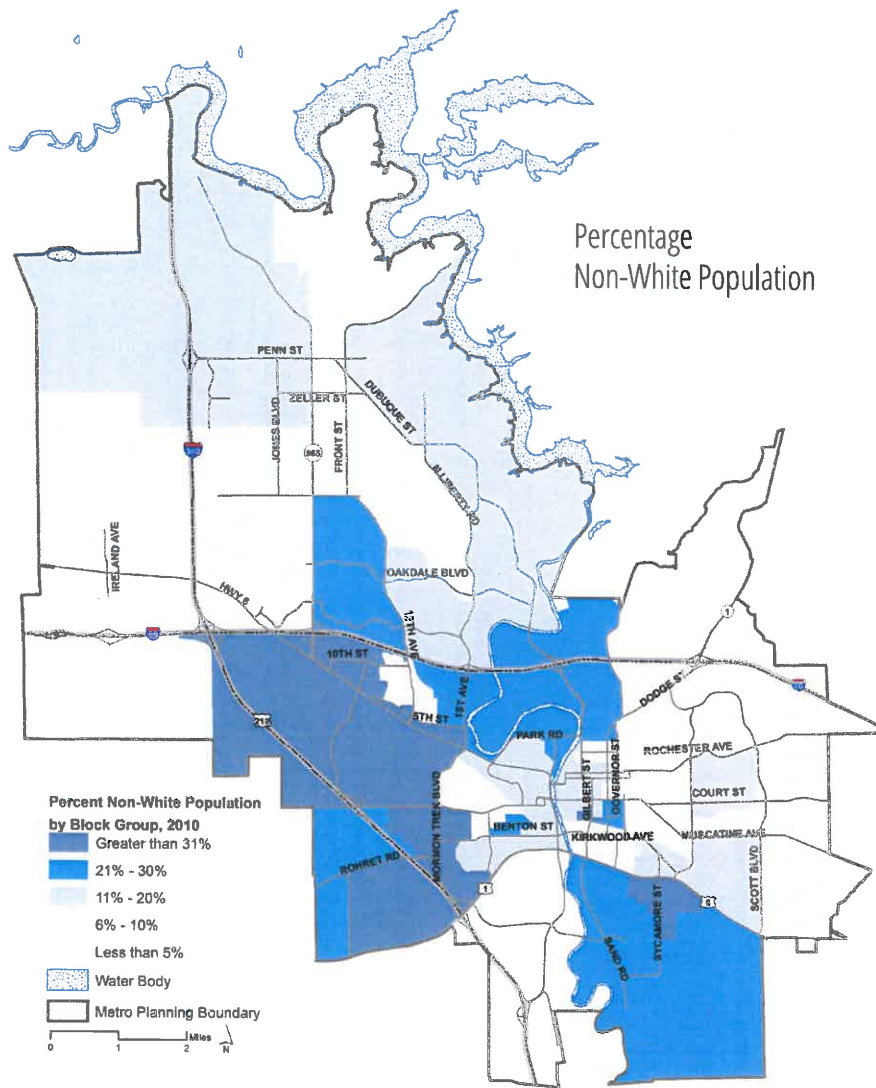
### Provide access and opportunity for all people and all neighborhoods

In order to be equitable, transportation planning must consider the unique needs and circumstances that impact mobility or access for individuals or neighborhoods to determine appropriate level investments. On a programmatic (micro) level, this includes the type and design of infrastructure or services necessary to ensure all members of the community can meet their daily needs. On a structural (macro) level, land use and transportation policies should support compact, multi-modal development, including a range of affordable housing types located in areas with convenient proximity to employment, education, and essential services.

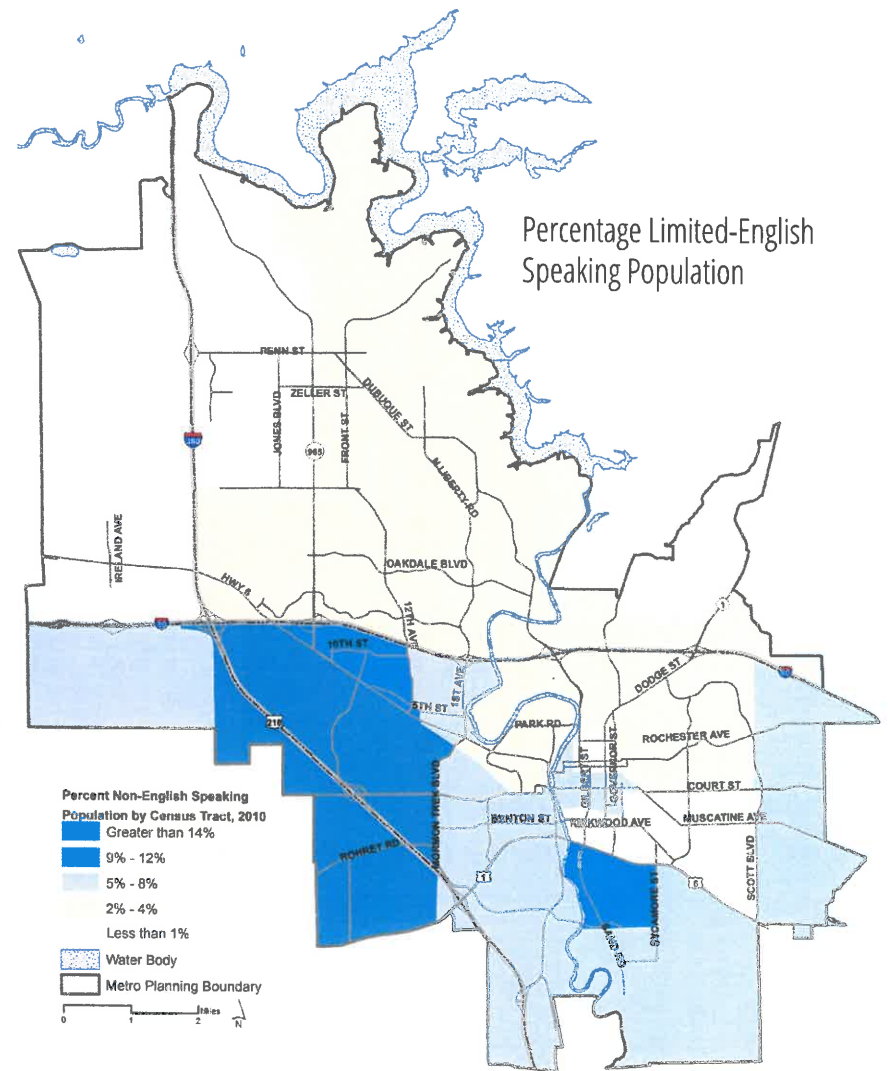
The transportation network exerts a profound influence on people's economic and social opportunities. At a broad level, transportation is necessary for individuals to access employment, education, housing, health care, recreation, and other daily activities. Individuals who are low-income, minority, elderly, limited English proficiency, youth, and persons with disabilities often face transportation challenges. The costs of transportation may represent a major share of household budgets. Inadequate or unreliable transportation is a significant obstacle to gaining and retaining employment and, for the elderly and people with disabilities, can lead to social isolation. For children, reliable transportation is key in ensuring good school attendance and the opportunity to participate in extracurricular activities and recreation.

MPOJC efforts to support equitable transportation planning include:

- Development of a Complete Streets Policy whereby all travel modes are accommodated in the design of streets that receive federal funding. Maximizing opportunities for non-motorized transit to lower costs and increase access to all households.
- Completion of a comprehensive ADA sidewalk ramp inventory, which will allow MPO communities to target accessibility improvements and services, such as paratransit, to assist individuals with limited mobility.
- Development of grant funding criteria for MPO-funded projects that consider improvements to ADA compliance and mode choice as well as improved access for roadways that service multi-family development or other special populations.
- Partnering with Johnson County, ECICOG, local human services agencies, for the development of a Mobility Coordinator - a position dedicated to working person in need of special transportation assistance.
- Assessment of signalized intersections to assist with prioritization of audible Accessible Pedestrian Signal (APS) enhancements.

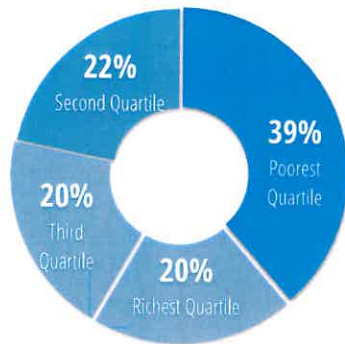


Source: American Community Survey 5-year estimates 2011-15; Johnson County; MPOJC

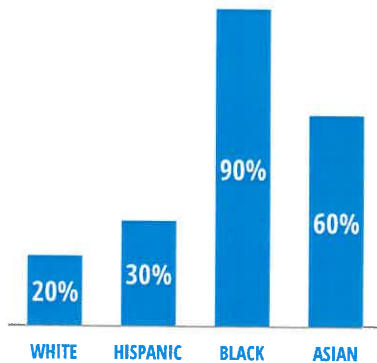


Source: American Community Survey 5-year estimates 2011-15; Johnson County; MPOJC

## Equity and National Biking Trends



**BICYCLE COMMUTING IN THE UNITED STATES BY INCOME QUARTILE**



**CHANGE IN U.S. BIKING AS A SHARE OF PERSONAL TRIPS, 2001-2009**

Source: 2001-2009 National Household Transportation Surveys. (Included in "Building Equity" a report from People for Bikes)

## Strategies to Ensure Equity:

1. Ensure a range of affordable transportation options for all people and neighborhoods.
2. Maximize the safety, convenience, and reliability of the public transit system.
3. Prioritize the expansion and improvement of the sidewalk and multi-use trail network, especially for direct access from multi-family or mixed use development.
4. Support land use and development policies that support safe and convenient access between housing and employment areas, schools, recreation, and commercial areas.
5. Provide targeted LOS evaluation for non-motorized travel to evaluate transportation services and infrastructure serving low-income and disadvantaged neighborhoods.
6. Prioritize projects that create or enhance multi-modal access to employment, education, or recreational facilities.

Performance Measures	Definition	Desired Trend	Baseline
Housing & transportation costs	Average proportion of household income devoted to housing and transportation costs	Decrease ↓	49% metro average



**Date:** September 13, 2018  
**To:** MPOJC Urbanized Area Policy Board  
**From:** Emily Bothell, Sr. Transportation Engineering Planner  
**Re:** Agenda item #3(c): Discussion regarding potential Federal Functional Classification (FFC) changes for MPOJC Urbanized Area roadways

The Federal Functional Classification (FFC) system is a hierarchy of five roadway classes and identifies which roads are Federal Aid Routes. The classes, from highest to lowest, are interstates, principal arterials, minor arterials, collectors, and local streets. Roadways with higher classifications provide better mobility and provide less access to individual properties. Roadways with lower classifications provide better access to individual properties and provide less overall mobility. The functional classification system's significance to MPO activities is that federal funding can only be spent on roadways functionally classified as collector, or higher, in the classification system.

At the September 12<sup>th</sup> Transportation Technical Advisory Committee meeting, we asked members to review the current FFC map [http://www.iowadot.gov/systems\\_planning/pdf/rffc0327.pdf](http://www.iowadot.gov/systems_planning/pdf/rffc0327.pdf) and identify potential roadways they would like added to the FFC system by October 12<sup>th</sup>, 2018. Potential roadways must demonstrate a high-level of connectivity within the existing FFC system and new roadways must be in a community's Capital Improvement Program in order to be approved by the Iowa DOT. Only 35% of the total road mileage within the urban area can be included in the Federal Functional Classification System. Currently, the Iowa City Urbanized Area is approximately 12 miles under the 35% limit.

Once MPO staff have received potential roadways identified by MPO jurisdictions, we will work with the Iowa DOT to classify the roadways within the FFC system and get 'pre-approval'. Once 'pre-approved' by the DOT, staff will take a final recommendation to the Transportation Technical Advisory Committee and Urbanized Area Policy Board for final approval.

I will be available at the September 19<sup>th</sup> meeting to answer any questions you may have.



Date: September 11, 2018

To: MPOJC Urbanized Area Policy Board

From: Brad Neumann, Assistant Transportation Planner

Re: Agenda item #3(d): Update on the CRANDIC Passenger Rail and Rails-to-Trails Studies

**Phase III - Iowa City to North Liberty Passenger Rail Conceptual Feasibility Study:**

The Phase III Passenger Rail Study is underway. The scope and fee has been agreed upon and MPOJC is now working with the Iowa DOT, CRANDIC, and HDR Consulting to complete the study. Funding for this study will come from the City of Iowa City, the City of Coralville, Johnson County, the University of Iowa, CRANDIC Railroad, and the Iowa Department of Transportation (DOT). The City of North Liberty chose not to participate financially.

The intent of the Phase III study is to focus on ridership, revenue forecasts, financial strategies, benefits to the community, and conceptual station design.

The Phase III study is scheduled to be completed by December of 2018.

**Rails-to-Trails Study:**

The Rails-to-Trails Study includes a shorter portion of the CRANDIC line in Iowa City and Coralville. The scope and fee has been determined with funding coming from the City of Iowa City, the City of Coralville, Johnson County, and the University of Iowa. The City of North Liberty, the Iowa DOT, and the CRANDIC Railroad are not funding this study.

The intent of this project is to study additional options that could be used to preserve the existing rail corridor for future use. This study will focus on developing costs for removing existing rail and constructing a six-mile trail in the CRANDIC rail corridor in Iowa City and Coralville.

The study should be completed by November 2018.

I will be at the September 19 meeting to discuss this item.

cc: Kent Ralston

August 8, 2018

Mark Lowe, Director  
Iowa Department of Transportation  
800 Lincoln Way  
Ames, IA 50010

Dear Director Lowe,

I write on behalf of the City Council of Iowa City to express our views concerning the proposed widening of I-380 from just north of Forevergreen Road to U. S. Highway 30.

In brief, we praise and strongly support the Iowa DOT's forthcoming actions concerning vanpooling/carpooling, express bus service between Iowa City and Cedar Rapids, and vigorous promotion/marketing of those initiatives, and we appreciate the DOT's support for studying the feasibility of passenger rail service between Iowa City and North Liberty. However, for reasons delineated below, we have several concerns about the proposed widening. Looking beyond this specific proposal, we strongly encourage you to facilitate and support careful analysis and evaluation of alternative land development / transportation scenarios for the corridor stretching from Cedar Rapids to Iowa City prior to widening I-380 again or undertaking any other major highway projects in the corridor.

#### **What the Iowa DOT Is Considering**

Let me begin by restating the situation as we understand it.

The Iowa DOT is conducting a planning study of I-380 from U.S. 30 in Cedar Rapids to north of I-80 in an effort to increase mobility across the interstate system. This study will include a series of technical reports that identify the existing condition of I-380, the way the system is performing, short- and long-term issues, and strategies to improve the route. The study follows a Planning Environmental Linkages (PEL) model, which will evaluate safety, capacity, infrastructure, and other topics regarding I-380, and will thereby enable the State DOT to make system-level decisions that will help shape individual projects throughout the corridor as they are developed and constructed over time.

An Iowa DOT memo on alternate modes describes the rationale for adding capacity to I-380 and generally concludes that "development of I-380 improvements are necessary in the short-term horizon and future alternative transportation implementation should be considered a supplemental long-term option" (p. ES-ii).

The Iowa DOT has developed some very rough programming estimates for a 6-lane expansion of two segments of I-380 from 1.25 miles north of the new Forevergreen Road interchange to U.S. Highway 30. While recognizing that final decisions have not been made, we understand that the

scope, approximate costs, and preliminary construction schedules for the two segments are as follows:

- Segment 1: From 1.25 miles north of Forevergreen Road to South of County Road F12 = \$150 M. This includes a new interchange at Penn Street and raising the interstate near the Iowa River, which was closed due to flooding in 2008. These dollars are inflated to year of construction: 2025-2027.
- Segment 2: From South of County Road F12 to U.S. 30 = \$250 M. This includes new / modified interchanges at F-12 and Wright Brothers but not at U.S. 30. These dollars are inflated to year of construction starting in 2027 +.

We also understand that the Iowa DOT seeks to mitigate adverse traffic effects associated with the rebuild of the I-80/380 interchange. To mitigate those adverse effects the DOT has partnered with ECICOG on a series of alternative modes of transportation. These include: (1) employee-driven van pools; (2) establishment of park-and-ride lots at Kirkwood College; (3) and planned express bus service from downtown Cedar Rapids to downtown Iowa City starting in the fall of 2018. The State DOT will also promote telecommuting, off-peak commuting and ridesharing, whereas ECICOG will manage the transit programs (“CorridorRides”) and has recently hired a local marketing firm to promote all their efforts. The Iowa DOT has committed to being funding partners for these efforts if they prove effective during construction time period - 2019-2024.

Last, we are aware that the Metropolitan Planning Organization of Johnson County (MPOJC) has, in collaboration with the Iowa DOT and the CRANDIC Railroad, been studying the feasibility of establishing passenger rail service in the corridor between Iowa City and Cedar Rapids. In January 2018, the MPOJC’s Policy Board instructed its staff to move forward with a Phase III study of possible service between Gilbert Street in Iowa City and Forevergreen Road in North Liberty. This study would focus on ridership and revenue forecasts, financial strategies, economic benefits to the community, and conceptual station design. The scope and fee of the Phase III study has yet to be determined. As part of its planning study of I-380, the Iowa DOT also examined the long-term potential for commuter rail and/or automated bus transit as a component of an enhanced multimodal transportation network in the Iowa City - Cedar Rapids Corridor. This study yielded favorable ridership estimates for passenger rail service between Iowa City and North Liberty.

### **Iowa City’s Assessment of the Proposed Plan**

As indicated above, we strongly support the Iowa DOT’s forthcoming actions concerning vanpooling/carpooling, express bus service between Iowa City and Cedar Rapids, and vigorous promotion/marketing of those initiatives. These actions are greatly needed and have considerable long-term potential. Council member John Thomas, City Manager Geoff Fruin, and I met with Jim Schnoebelen, Catherine Cutler, and one other Iowa DOT official on January 26, and we came away persuaded that the DOT has good ideas about how to make these actions succeed. We also greatly appreciate Iowa DOT’s support for studying the feasibility of passenger rail service between Iowa City and North Liberty.

However, we have many concerns about the proposed widening of I-380 from 4 to 6 lanes. Our



concerns include the following:

### *Exorbitant Cost*

To begin with, the widening of these two segments will cost \$400 million. This is in addition to the costs of rebuilding the I-80/380 interchange and any further widening of I-80 within Johnson County.<sup>1</sup> But this construction cost is just the tip of the iceberg. The widened interstate will have to be maintained, repaired, resurfaced, and possibly widened again at some time in the future, all at a time when there seems not to be enough money to resurface and/or reconstruct existing streets in our cities and counties. A substantial body of research indicates that the current and future costs related to the projects such as the widening of I-380 are not affordable and that more economically-efficient mobility alternatives are available.

### *Questionable Assumptions about Future Traffic Volumes*

Is the widening a reasonable and necessary expense? In part, the answer initially depends on current and projected traffic volumes. We understand that traffic counts at the Johnson/Linn County line increased by about 50 percent between 1998 (38,200) and 2014 (55,600), and at times drivers can feel trapped in congested traffic. If one simply extrapolates past trends into the future, then the widening would be necessary. But this presumes that several key variables affecting optimal use – modal split, average vehicle occupancy, peak use during commuting hours, and current land development patterns – will not change significantly.

Modal Split. The need for widening presumes, for example, that the modal split for travelers in the corridor between Iowa City and Cedar Rapids will not change; that is, routine local travel between the two cities will consist overwhelmingly of people driving traditional passenger vehicles. We ask, however, how might the modal split and projected traffic volumes change if a high-quality commuter rail or light-rail line was established on the CRANDIC right of way, especially if local public transit systems and bicycle paths were deftly linked to the nodes of that light rail line?

Average Vehicle Occupancy. The widening also presumes that the average motor vehicle occupancy will remain very low, even during peak commuting hours. But this begs the question, how might the projected volumes change if those occupancy rates were increased significantly through the development and incentivized use of a high-quality carpool/vanpool system? And might it not be vastly cheaper to create and use such a system rather than to widen the interstate?

Induced Demand. Moreover, the widening presumes that projected increases in demand necessitate the widening. We suggest, rather, that much of the projected increase in traffic volumes will actually be *induced* by the widening. To press the point, we think that the continual widening of the interstate segments in the Iowa City / Cedar Rapids region will only induce greater demand and make it far less likely that a commuter rail or light rail line, or even an Amtrak line between the Quad Cities and Omaha, will be built. Likewise,

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<sup>1</sup> These projects are related to a \$3.2 billion project to rebuild and widen I-80 to six lanes across the state. See William Petroski. 2018. "Iowa DOT report: I-80 tolls are 'feasible option'". *Des Moines Register* (March 26), p. 1A.

we anticipate that the continual widening of these interstate segments and highways connected to them will produce land development projects that leave people with no choice but to drive their vehicles at very low occupancy rates.

### *Questionable Assumptions about Traffic Safety*

The proposal to widen I-380 also presumes that adding lanes will improve traffic safety by reducing congestion. Our understanding is that widening the interstate might, in fact, increase the risk of high-speed traffic accidents by encouraging yet more drivers to drive faster and to weave between lanes more aggressively.

### *Disregard for Carbon Emissions and Climate Change*

We are concerned as well that the proposed widening pays insufficient attention to the carbon emissions associated with motor vehicle traffic and the use of highway construction materials and equipment. In our judgment, we in the Iowa City / Cedar Rapids region should be helping to alleviate the magnitude and consequences of climate change by reducing, not increasing, carbon emissions.

### *Future Role of Autonomous Vehicles*

Plans for the widening also seem to pay insufficient attention to potential effects of autonomous vehicles on Vehicle-Miles-Traveled (VMT). I have heard a noted transportation planning scholar in Europe say that researchers cannot project with confidence whether the influx of autonomous vehicles will cause VMT to double or be cut in half. If such vehicles cause traffic volumes and/or traffic congestion to be cut in half, the primary justification for widening I-380 would disappear. Widespread use of autonomous vehicles could help bring a bright new future for the region, but it might also produce an auto-centric dystopia. Decisions the Iowa DOT make today will largely determine what kind of future we will be producing.

## **Iowa City's Recommendation**

The situation calls for innovative thinking and action, as is appropriate for a creative corridor such as ours. A major step in this direction would be for the Iowa DOT to think outside the box of "transportation planning," and instead collaborate with local governments and other interested parties to develop and evaluate alternative land development / transportation scenarios for the Cedar Rapids / Iowa City corridor.

Several alternative scenarios should be assessed. One would presume continuation of present patterns and trends. A second important scenario could be called a Sustainable Region. Other scenarios can be imagined, including syntheses of the first two.

As we envision it, a Sustainable Region scenario would enable people to travel quickly and safely between Cedar Rapids and Iowa City while also helping to build healthy, walkable, and economically productive development patterns within those and related cities. This scenario would rely heavily on electric-powered buses and a well-planned regional system of

interconnected public transit routes. At the heart of this regional system would be: (1) a commuter or light rail line that serves as a major “passenger artery” connecting Iowa City with Cedar Rapids, and (2) aesthetically appealing and sufficiently dense developments located around the rail line’s stations. The last element is crucial, for economical operation of a commuter or light rail line requires the kind of ridership provided by “transit-oriented developments” at each of the line’s stations. The use of Transportation Network Companies such as Lyft and Uber for specific activities could – especially when using electric-powered autonomous vehicles -- also play a major role in this scenario.

We are fully aware that local governments cherish their ability to control land development patterns in their jurisdictions. This is the main reason why we would be eager to collaborate with the Iowa DOT and other local governments and interested parties to develop and evaluate alternative land development / transportation scenarios for the region. In fact, officials from Iowa City and Coralville officials recently met to discuss our common interests pertaining to public transit, the CRANDIC right-of-way, bicycle trails and lanes, and other related matters.

In brief, and for the reasons stipulated above, we strongly encourage you to facilitate and support careful analysis and evaluation of alternative transportation / land development scenarios for the corridor stretching from Cedar Rapids to Iowa City prior to widening I-380 again or undertaking any other major highway projects in the corridor.

We would be eager to discuss this with you, your staff, and other interested parties.

Best regards,



Jim Throgmorton  
Mayor of Iowa City

Cc: Urbanized Area Policy Board of the Johnson County Metropolitan Planning Organization  
City Manager and Council of Iowa City  
Mayor and Council of Cedar Rapids  
Mayor and Council of Coralville  
Mayor and Council of North Liberty  
Mayor and Council of Shueyville  
Mayor and Council of Swisher  
Mayor and Council of Tiffin  
Johnson County Board of Supervisors  
Cathy Cutler, District 6, Iowa Department of Transportation  
Jim Schnoebelen, District 6, Iowa Department of Transportation