



# Chapter 5 FUTURE NEEDS ANALYSIS

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This chapter summarizes **year 2045 population and employment projections** and the **multimodal conditions and issues** within the Metropolitan Planning Area.

The analysis addresses potential multimodal deficiencies and identifies projects for **roadways, public transportation, freight, non-motorized, and aviation.**

## 2045 POPULATION AND EMPLOYMENT PROJECTIONS

For consistency, the year 2045 population and employment projections for the DUATS LRTP were the same as the projections developed for the Decatur Supply Chain Network Planning and Optimization Study. The 2045 projections are summarized below.

### 2045 Population and Employment

According to the U.S. Census, the population in Macon County was 107,732 in 2018, which continues the downward population trend that was highlighted in Chapter 3. The Decatur Supply Chain Network Planning and Optimization Study acknowledged a continued downward population trend through 2045; however, in terms of employment, 2045 projections showed an increase from 64,483 jobs in 2018 to 67,436 jobs in 2045. Given the projected increase in employment, the consultant determined that from a long-term planning perspective, the population growth should reflect a similar percentage increase as that of employment (4.6 percent). As such, the 2045 population for the region is projected to be 112,666, representing just under a 5,000 person increase over the next 25 years. Table 5-1 summarizes the projected 2045 population and employment for the region.

Table 5-1: 2045 Population and Employment Projections

	2018	2020	2030	2045	Change (2018 - 2045)	
					Total	Percent
Population	107,732	107,188	105,342	112,666	4,934	4.6%
Households	46,932	46,865	47,751	49,081	2,149	4.6%
Total Employment	64,483	65,091	66,029	67,436	2,953	4.6%
Industrial/Utility/Farm Employment	16,033	16,004	16,468	17,165	1,132	7.1%
Commercial Employment	8,689	8,724	8,710	8,689	0	0.0%
Service Employment	39,761	40,363	40,851	41,582	1,821	4.6%

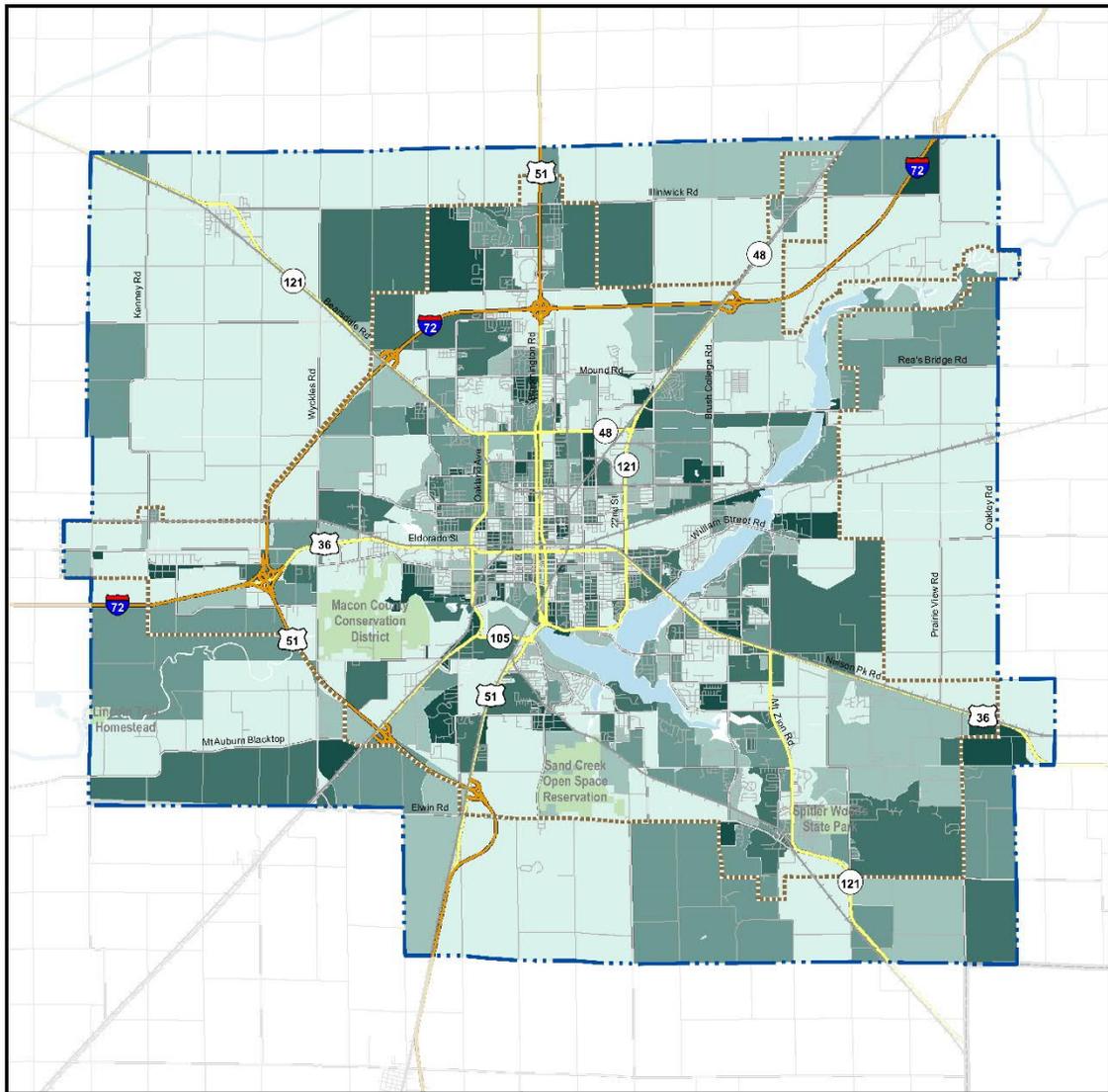
Source: Decatur Supply Chain Network Planning and Optimization Study (Woods and Poole/KOA/Quetica)

Figure 5-1 displays projected population levels in 2045 and Figure 5-2 displays projected population densities in 2045. Figure 5-3 displays the population change between 2015 and 2045.

As described in Chapter 3, the largest industry sectors in Macon County in 2018 were Manufacturing, Health Care and Services, and Government—all three of which experiences positive growth in jobs between 2013 and 2018, according to Emsi data sources. Manufacturing grew by 7 percent, Health Care and Services by 8 percent, and Government by 2 percent. The largest growth sectors in proportional terms were Utilities (16 percent growth), Administrative and Support Services (9 percent growth), and Professional and Technical Services (8 percent growth). The sectors that shrank the most were Management of Companies, Information, and Real Estate and Leasing, all of which have low concentrations in the area and contracted by over 10 percent between 2013 and 2018.

Figure 5-4 displays projected employment levels in 2045 and Figure 5-5 displays projected employment densities in 2045. Figure 5-6 displays the employment change between 2018 and 2045.

Figure 5-1: Projected 2045 Population



**Legend**

- |                          |                        |
|--------------------------|------------------------|
| 20-Year MPA Boundary     | <b>2045 Population</b> |
| DUATS Urbanized Boundary | Less than 75           |
| Railroad                 | 76 - 150               |
| Interstate               | 151 - 300              |
| Principal Arterial       | 301 - 600              |
|                          | Greater than 600       |

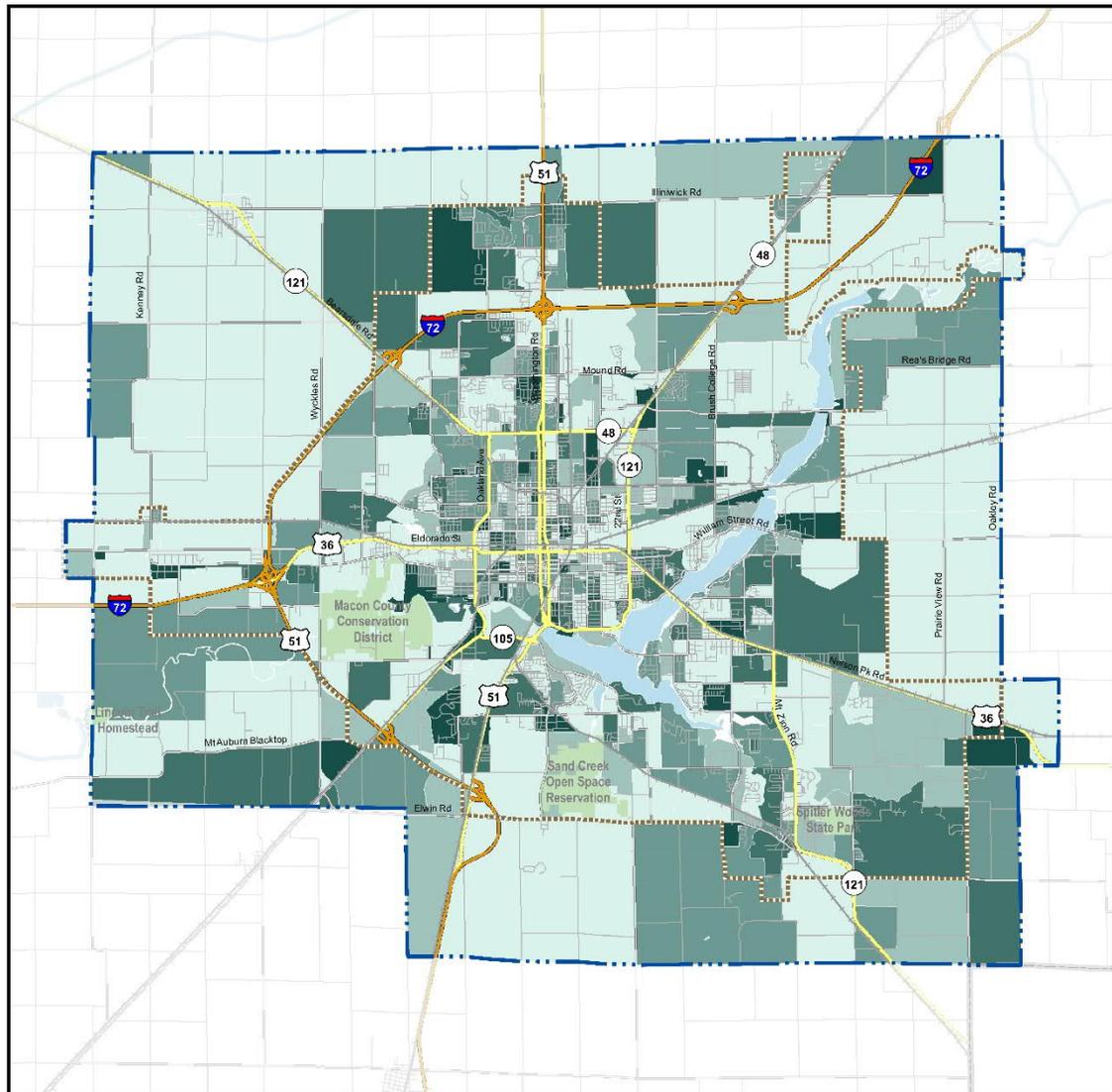


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Data Sources: Illinois DNR, IDOT, US Census, Macon Co, DUATS  
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Figure 5-2: Projected 2045 Population Density



**Legend**

- 20-Year MPA Boundary
- DUATS Urbanized Boundary
- Railroad
- Interstate
- Principal Arterial

**2045 Population**

- Less than 75
- 76 - 150
- 151 - 300
- 301 - 600
- Greater than 600

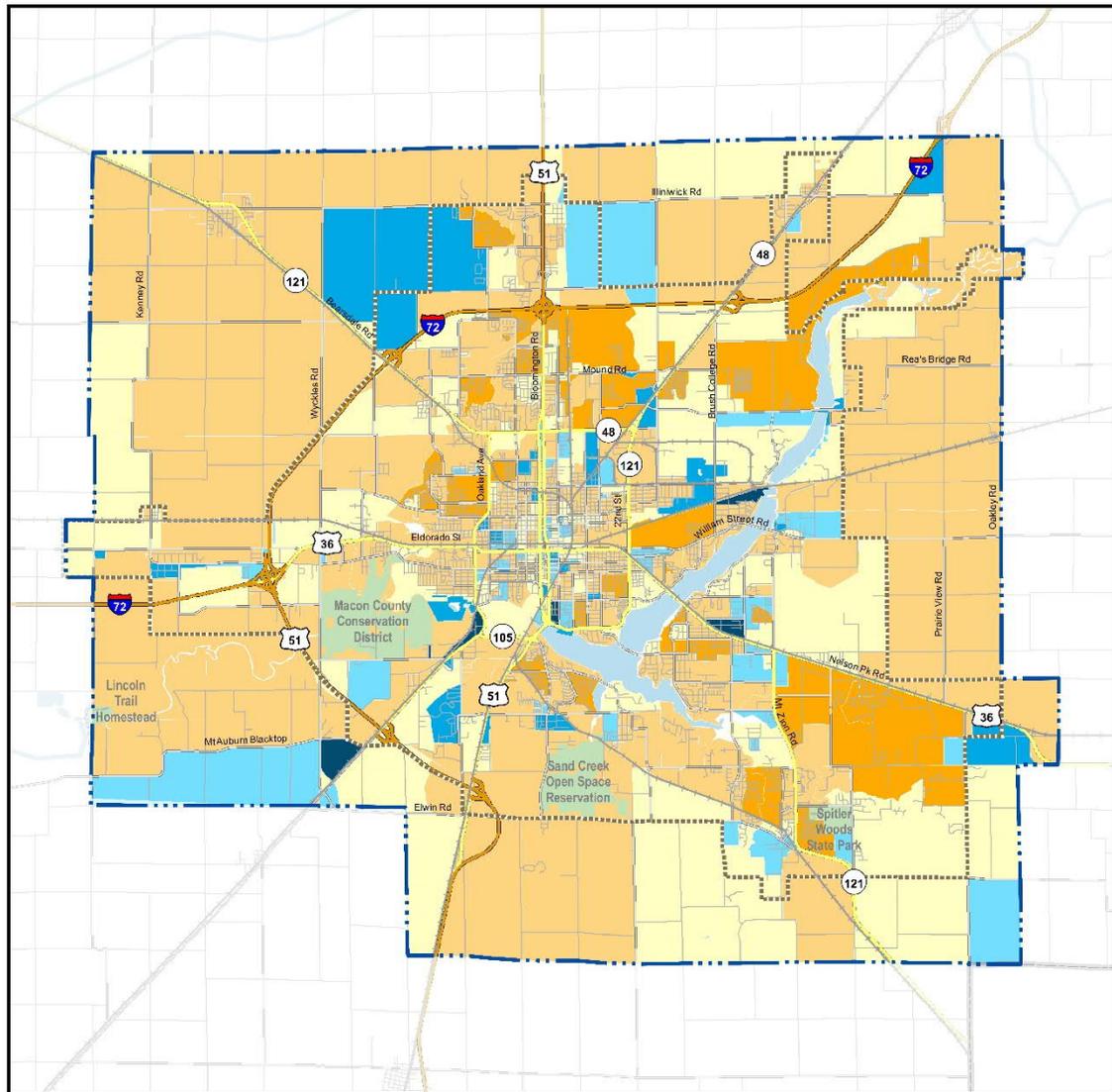


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Figure 5-3: Population Change (2018 – 2045)



**Legend**

- 20-Year MPA Boundary
- DUATS Urbanized Boundary
- Railroad
- Interstate
- Principal Arterial

**Population Change (2018-2045)**

- Greater than -500
- 0 to -499
- 0 to 249
- 250 to 499
- 500 to 999
- 1,000 or Greater

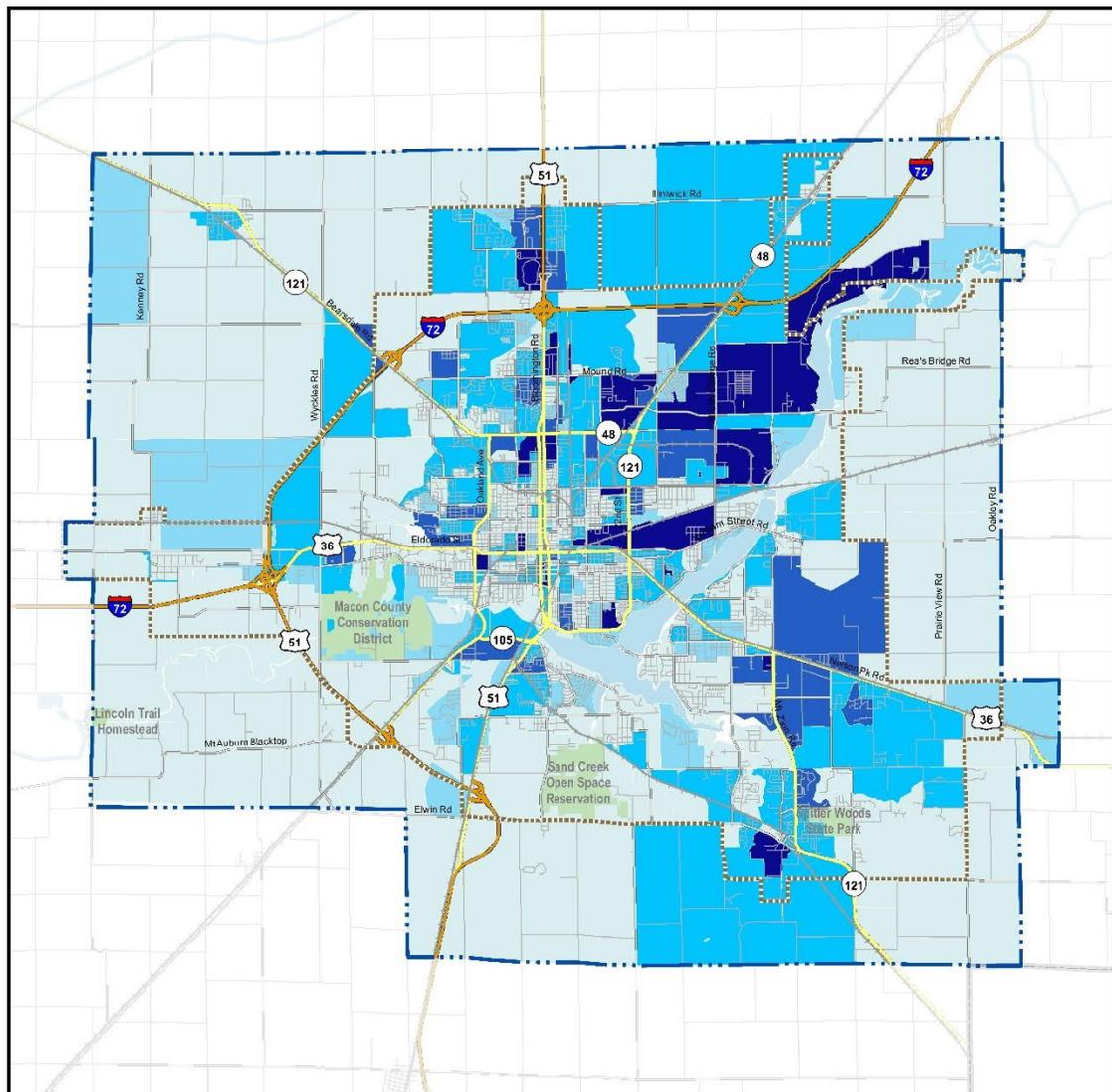


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Data Sources: Illinois DNR, IDOT, US Census, Macon Co, DUATS  
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Figure 5-4: Projected 2045 Employment



**Legend**

- |                          |                        |
|--------------------------|------------------------|
| 20-Year MPA Boundary     | <b>2045 Employment</b> |
| DUATS Urbanized Boundary | Less than 25           |
| Railroad                 | 26 - 50                |
| Interstate               | 51 - 250               |
| Principal Arterial       | 251 - 500              |
|                          | Greater than 500       |

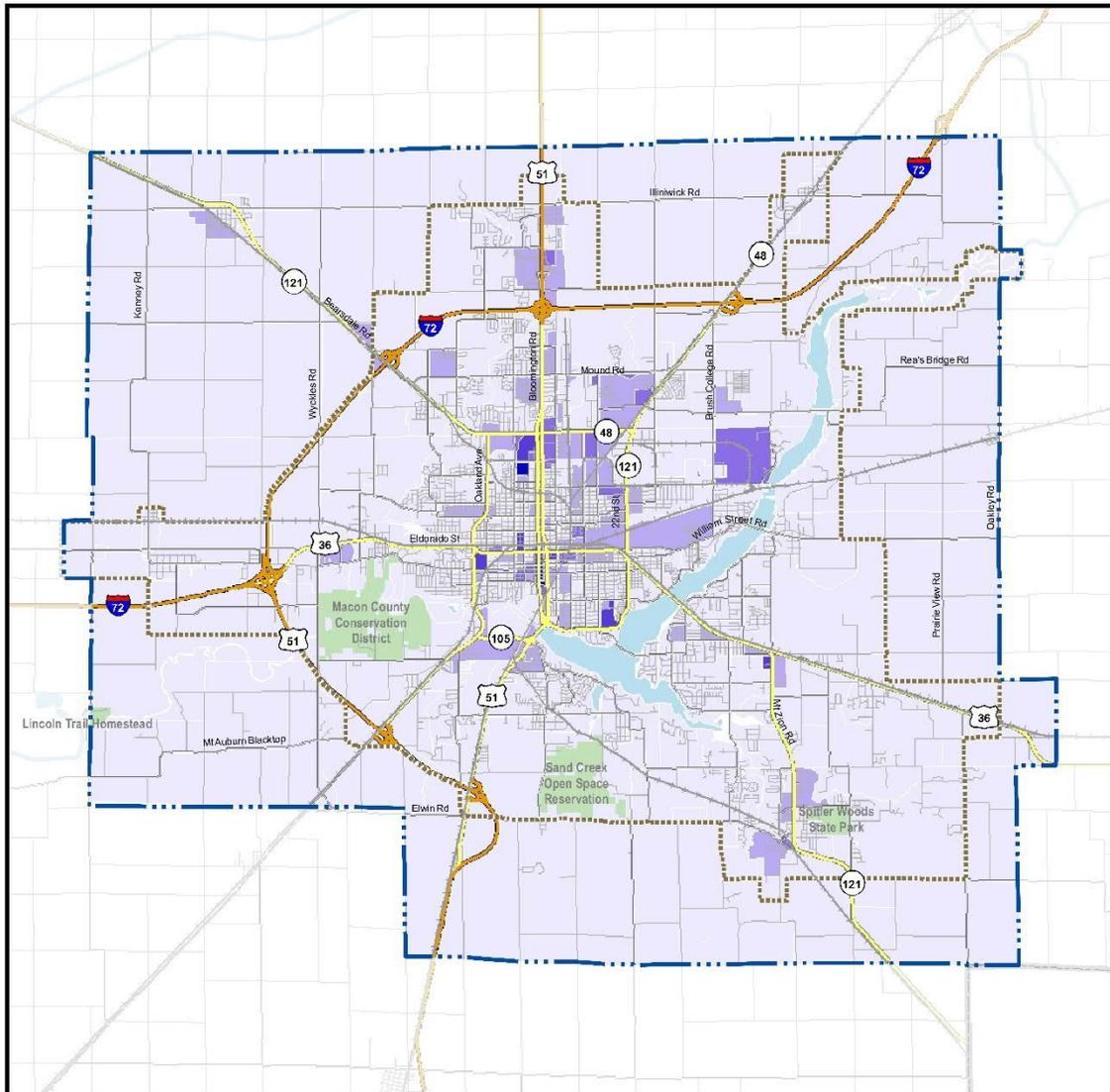


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Data Sources: Illinois DNR, IDOT, US Census, Macon Co, DUATS  
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Figure 5-5: Projected 2045 Employment Density



**Legend**

- 20-Year MPA Boundary
- DUATS Urbanized Boundary
- Railroad
- Interstate
- Principal Arterial

**2045 Employment Density**

- Less than 1,000
- 1,001 - 3,000
- 3,001 - 7,500
- 7,501 - 15,000
- Greater than 15,000

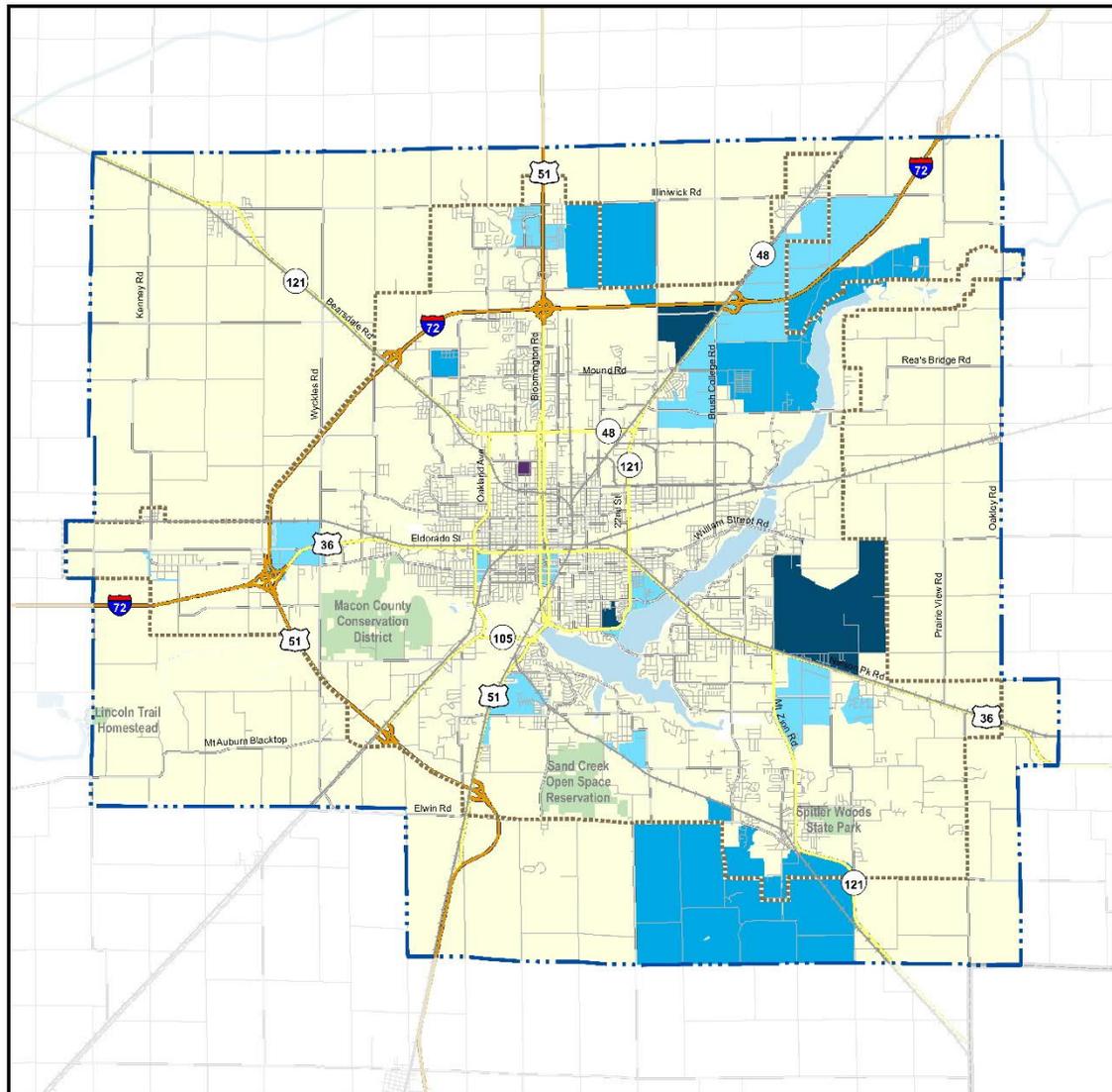


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Data Sources: Illinois DNR, IDOT, US Census, Macon Co, DUATS  
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Figure 5-6: Employment Change (2018 – 2045)



**Legend**

- 20-Year MPA Boundary
- DUATS Urbanized Boundary
- Railroad
- Interstate
- Principal Arterial

**Employment Change (2018-2045)**

- No Change
- Less than 50
- 51 to 150
- 151 to 250
- Greater than 250



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Miles

Data Sources: Illinois DNR, IDOT, US Census, Macon Co, DUATS  
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## OVERVIEW OF FUTURE YEAR NEEDS

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The existing conditions analysis identified transportation, mobility, and infrastructure issues that are currently present within the region. These issues are the starting point for the future year needs assessment to identify future mobility and infrastructure issues, challenges, and opportunities for the region through the horizon year 2045.

The identification of future needs and opportunities is based on a combination of a multimodal technical analysis, consideration of growth trends, and input from local agencies, stakeholders, and the public. This process builds off the 2040 LRTP recommendations and considers recent and on-going planning studies that could impact future transportation decision-making and investments. Through this process, the needs assessment provides information to identify potential multimodal transportation improvements/projects that support the DUATS 2045 LRTP goals and objectives. Not only does this section address the region's LRTP needs, it also informs decisions regarding which projects to fund in the Transportation Improvement Program (TIP), and future studies to include in the Unified Planning Work Program (UPWP).

The future year population and employment projections for the region lay out a relatively modest increase through the year 2045 (approximately 5,000 persons and 3,000 jobs). It is unlikely that the projected growth will add significant pressure on the area roadways in terms of capacity issues. As such, future year transportation investments should—for the most part—focus on maintaining or improving the existing infrastructure, which was a priority of area residents according to the 2045 LRTP survey. Improvements should also include enhancing regional connectivity, which has been documented as a need in the east and southeast portion of the MPA.

Over the next two decades it will also be important to explore opportunities to identify new mobility solutions with a focus on supporting economic growth and improving the quality of life for area residents. The identification, integration, and development of future projects should also prioritize enhanced safety for the traveling public and increased efficiencies in operating and maintaining the transportation system—all of which are referenced in the DUATS 2045 LRTP goals and objectives.

The following sections discuss future year needs for the individual transportation modes. While discussed by mode, it is recognized that an integrated, multimodal transportation system will ultimately provide a more diverse and efficient transportation system that is better able to respond to future travel demands in a cost-effective manner. The section begins with a summary of the stakeholder survey and community survey results conducted as part of the 2045 LRTP update.

### Stakeholder Surveys

Regional stakeholders were interviewed at the beginning of the 2045 LRTP development process and were asked to identify the biggest transportation/mobility concerns within the DUATS MPA. Stakeholders identified the following key themes:

- ▶ **High volumes of truck traffic** | Truck traffic is an important element of the Decatur regional economy; however, along with high truck volumes comes disruption to residential areas and local businesses. While recent truck route improvements through downtown Decatur have helped direct truck traffic to more appropriate roadway corridors, there remain areas where trucks are not compatible with adjacent land uses. Safety concerns are paramount,

and many stakeholders emphasize the importance of establishing a hierarchy of roadways to better accommodate current and future truck volumes throughout the region. As part of the truck transportation discussion, several stakeholders focused on the opportunities for growth in eastern portion of the DUATS MPA. Specifically, two key priorities were improving access (1) from I-72 to the airport and (2) along state routes to local industry. These priorities were also supported by findings from the Decatur Supply Chain Network Planning and Optimization Study, which reported that local business and civic leaders repeatedly cited truck access to the industrial areas of Decatur as a hurdle for the city to gain prominence as a logistics hub. It is not only local stakeholders who have concerns about this issue—regional trucking companies and the Illinois Trucking Association also cited access concerns as a long-standing issue among the motor carrier community.

- ▶ **Deteriorating road conditions** | Deteriorating conditions of the regional roadway infrastructure was mentioned by several stakeholders. Generally speaking, there are numerous roadways within the MPA in need of a pavement overlay, or reconstruction. This concern is closely tied to the high truck volumes that were previously discussed. The high truck volumes, combined with heavy loads, place significant stress on the roadway pavement and contribute to the need for more frequent repairs.
- ▶ **At-grade rail crossing delays** | At-grade rail crossings, and specifically the travel delays caused by frequent train blockages, have been well documented as having negative impacts on the Decatur transportation system, as well as the regional economy. At-grade rail crossings also have direct negative impacts on truck access to the MIP.
- ▶ **Regional air travel** | A few stakeholders mentioned that they would like to see the Decatur airport expand the availability of commercial air service. In recent years the number of passengers using the Decatur airport has been steadily growing and some noted a potential opportunity to expand air service options in the future.

As a follow-up, stakeholders were asked if the key issues had any negative impacts on local businesses. Stakeholders indicated that the poor roadway conditions have several negative impacts including potentially creating safety and operational concerns, in addition to the overall negative impact that deteriorating infrastructure has on aesthetics. Stakeholders also returned to the issue of at-grade rail crossing delays and the negative impact that long train blockages have on the traveling public (including area bus riders) and the movement of goods (by delaying trucks traveling within and through the region).

There was consensus among stakeholders that if the region could address these transportation and infrastructure issues, economic growth would follow. Stakeholders generally agreed that the following four improvements would provide the most benefit the Decatur region.

- ▶ **Construct the Beltway** | Stakeholders talked about the importance of enhancing connectivity/access in the east and southeast portion of the region, and specifically mentioned improving access to the airport as an important economic development driver. Most stakeholders feel the Beltway will provide a much-needed roadway connection to facilitate the efficient movement of truck traffic through the region. Some stakeholders stated that it is critical to complete the Beltway as it is important to have it in place to

attract new businesses to the region.

- ▶ **Improve access to the Airport** | Most stakeholders referenced the previously mentioned Beltway as the top priority to improve access to the airport; however, some mentioned the need to improve the US-36 bridge crossing as another important transportation improvement.
- ▶ **Construct grade separations** | Reducing or eliminating at-grade rail crossing delays was another priority for the region. The grade separation at Brush College and Faries Parkway will help address the top delay location in the region but other at-grade crossings were also mentioned as areas of concern. Additional crossings include:
  - Brush College (crossing north of Faries Parkway, and the NS underpass south of Faries)
  - 27<sup>th</sup> Street
  - US 36 (Eldorado)
- ▶ **Enhanced connections between modes** | Several stakeholders indicated that the region has been making progress in constructing non-motorized facilities and they would like to see the completion of a continuous north-south trail that would connect the entire DUATS MPA.

Finally, stakeholders were asked to provide additional comments regarding any other future transportation issues facing the region. Responses included the following:

- ▶ **New technology** | A few stakeholders inquired about the potential benefits of emerging transportation technology, such as advancements in autonomous vehicles, electric vehicles (and the need for charging stations), and drones used for deliveries. Stakeholders also wondered what other new/emerging technology might be deployed over the next 25 years that currently does not exist. Generally speaking, it is believed that technology will play an important role in improving safety for the traveling public, primarily through future technology advancements that reduce or prevent crashes.
- ▶ **Connected bicycle infrastructure** | Stakeholders expressed a desire to fill-in the gaps in the current bicycle network plan to ultimately create a continuous, connected system through the DUATS region. A specific concern is the need to improve Lake Decatur bicycle/pedestrian crossings to enhance safety and regional connectivity.
- ▶ **Aging population** | A few stakeholders expressed concern the potential transportation and mobility needs associated with the aging population trend. In particular, some wondered about the potential need to enhance or expand alternative mobility options to best address future mobility needs of area residents.

Finally, stakeholders were asked to identify the primary obstacles to make the priority improvements within the DUATS MPA. The response overwhelmingly focused on the lack of transportation revenues and funding. There was also some concern about how the declining population trend in recent years could negatively impact future revenues. Stakeholders reiterated the importance of addressing the transportation and infrastructure needs in order to be able to attract new job opportunities to the region.

### Community Survey

An online survey was launched on the SurveyMonkey platform in July 12, 2019 and closed on August 16, 2019. The survey consisted of 23 multiple-choice and open-response questions. Questions related to both the transportation preferences and the characteristics and travel behavior of the survey participants. In total, 957 people participated in the survey, though not all participants answered every question. Furthermore, given that this survey was open to anyone in the public, the results should be viewed with caution as this was not intended to be a statistically valid survey. Instead it provides insight into specific transportation and mobility issues in the Decatur region that can help inform the development of key themes for the DUATS 2045 LRTP.

Detailed survey results are summarized in an appendix, and some responses have been included throughout this LRTP update. The findings of the community survey were mostly consistent with the stakeholder priorities and the previous 2040 LRTP recommendations. Generally speaking, the public wanted the 2045 LRTP to prioritize improvements to the existing transportation infrastructure. In addition, the public wanted the LRTP to prioritize eliminating or minimizing travel delay associated with at-grade rail crossings.

The discussion of the future year needs is categorized into the following sections:

- ▶ Roadway;
- ▶ Public Transportation;
- ▶ Non-Motorized;
- ▶ Freight Traffic and Mobility; and
- ▶ Aviation.

## ROADWAY NEEDS

Highways and roadways facilitate the highest percentage of travel within the DUATS region, and providing an efficient and effective roadway system is critical to support the region’s economy, quality of life, mobility, and social equity. While primarily serving vehicular traffic, roadways also facilitate freight (truck) movements, public transit operations, and bicycling. In Decatur, roadways also interact with the regional rail network as numerous at-grade rail crossings impact regional travel. As such, it is critical to consider the range of impacts and benefits that roadway improvements have on the overall regional multimodal transportation system—essentially evaluating the roadway system from a “Complete Streets” perspective. The following highlights the future roadway needs and opportunities within the DUATS region.

### Roadway Priorities

2045 LRTP survey participants were asked to rate their level of satisfaction among a range of road and freight issues in the Decatur area (Figure 5-7). The issue that elicited the strongest dissatisfaction was the condition of roadways in the region. Both in the open response and multiple-choice sections, respondents consistently reported that the road conditions need to be addressed. Over 60 percent of responses mentioned road conditions as the most important transportation issue.

Open responses cite specific problematic roadways and mention that major routes were particular concerns. For example, many participants mentioned US 51 and US 36 as roads that were in very poor condition.

The next most important issue was the impact of rail crossings on ease of travel. Motorist delays due to rail crossings were a major concern (very dissatisfied) for 30 percent of respondents, and another 31 percent indicated that they were dissatisfied with these delays. The other three issues—ease of east/west travel, ease of north/south travel, and traffic safety on major roadways—received more favorable ratings, though still only about a third of the respondents reported being satisfied in these areas. Full response data is provided in Table 5-2.

Figure 5-7: Average Satisfaction with Road/Freight Issues

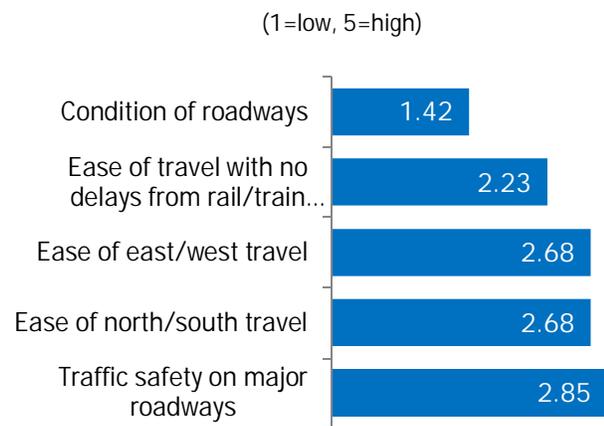


Table 5-2: Satisfaction with Characteristics of Road/Freight Network

	Very Satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied
Ease of north/south travel	4%   34	27%   240	24%   213	24%   215	19%   168
Ease of east/west travel	3%   27	27%   236	28%   243	23%   205	17%   152
Ease of travel, delays from rail	1%   13	15%   129	21%   190	31%   275	30%   269
Traffic safety on major roadways	2%   20	32%   280	30%   262	23%   200	13%   116
Condition of roadways	0%   2	2%   16	5%   42	26%   231	67%   592

Source: 2019 LRTP Community Survey. Note: Responses indicating “Don’t Know” are excluded.

### Pavement Conditions

Maintaining roadway pavement in a state of good repair throughout the MPA involves extensive

planning and investment. As previously documented, the DUATS region has a high percentage of roadways rated as “Fair” or “Poor,” which typically require some form of maintenance in the short term. As such, improving pavement conditions in the short term will be a critical element facing the region.

Understanding existing pavement conditions helps agencies to ensure resources are in place to provide preventive roadway repairs prior to rapid deterioration. Deferred maintenance potentially accelerates deterioration and can lead to larger infrastructure concerns as routine maintenance needs start to increase at a faster rate than available funding. It is important for DUATS to monitor progress toward addressing pavement condition to provide a safe, reliable roadway conditions. Furthermore, if the DUATS region does not meet pavement condition performance targets, the region might be required to allocate additional funding toward pavement improvements.

### Regional Connectivity/Access

Improving regional highway/roadway connectivity to the eastern portion of the MPA is an issue of significance to DUATS. This issue has been identified in previous DUATS L RTPs and it continues to be a regional priority. Enhancing roadway connectivity to the eastern portion of the MPA will strengthen the regional functional classification system and improve access to the airport. This enhanced connectivity/access will also support economic development opportunities. The Beltway, when completed, is expected to address the regional connectivity issue by increasing airport access and better accommodating truck traffic (negating to a larger extent the undesirable impacts associated with large trucks). The Beltway also has the potential to lower roadway maintenance costs within the urbanized area by shifting a significant portion of truck movements to fringe roadways which will be constructed to design standards better able to accommodate heavier truck traffic.

### At-Grade Rail Crossings

As previously documented, at-grade rail crossings have significant impacts on travel within the DUATS region. This concern is likely to increase as the region is expected to attract additional industry and employment, and correspondingly increased rail traffic. An increase in rail operations is also likely to be supported by increased truck traffic, which in turn may be negatively impacted by growing at-grade rail crossing delays. Additional at-grade rail crossing delays would also negatively impact the traveling public.

At-grade rail crossings have been a concern of area officials and the public for many years; however, it was not until the DATES project<sup>5</sup> that this issue was studied in detail. DATES quantified delays and projected future increases in delays at key crossing locations, including:

- ▶ **NS Crossing at Brush College Road (near Faries Parkway)** | This location was previously identified as being the most frequently blocked crossing within the DUATS MPA. DATES estimated 234 blockages per week resulting in 24.3 hours of delay—the equivalent of being blocked one full day each week. This crossing is currently being designed for a grade-separated facility that is expected to begin construction in the next few years.
- ▶ **The Main / Water Crossings** | These locations project the lowest increase in number of trains, increasing from 22 to 29;

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<sup>5</sup> URS Corporation, Decatur Area Transportation Efficiency Study (DATES) Final Report (2013).

- ▶ **Brush College Road (near ADM)** | The most significant increase in train blockages that result in increased travel delays were projected at this location. Using the future year rail growth assumptions, this crossing is projected to increase from approximately seven hours to almost 19 hours of delay per week. It is important to note that the increase is one of many possible scenarios and the actual impact at this location is directly related to ADM operations; and
- ▶ **Other Crossings** | Other locations are generally projected to increase to a point that they would add between 20 and 30 additional train blockages per week.

Eliminating at-grade rail crossings at key locations, such as Brush College Road and Eldorado Street, is a high priority in the region and vital to supporting economic growth. The at-grade crossing along 27<sup>th</sup> Street is another key location to address. In addition to creating travel delays, at-grade rail crossings are also a safety concern as collisions between trains and other roadway users can cause not only serious injury and death, but also many other externalities such as loss of economic productivity, damage to infrastructure, cost of emergency services, etc. Eliminating crossings via bridges, viaducts, alternate routes, and other means of separation enhances the safety of the entire transportation system.

### 2045 Modeling Scenarios

As previously discussed in the existing conditions chapter, modeling traffic operations in the Decatur region is challenging, given the significant levels of truck traffic as well as numerous at-grade rail crossing delays. As part of the recent Decatur Supply Chain Network Planning and Optimization Study, the consultant made modifications to the DUATS regional travel demand model to replicate at-grade rail crossing delays within the Decatur region. The frequent train blockages that occur within the region have been well documented, in particular in the Decatur Area Transportation Efficiency Study (DATES), which quantified the delay at the primary crossings.

For consistency, the 2045 LRTP uses the scenarios that were modeled for the Decatur Supply Chain Network Planning and Optimization Study. Based upon a review of current transportation issues, the major capacity improvements that would benefit the DUATS region include the Beltway and the construction of grade-separated structures to eliminate key at-grade rail crossings. The future year (2045) scenarios that were modeled include the following:

- ▶ **Scenario 1** | Existing plus Committed (E+C) improvements (including grade separation at Brush College and East Faries Parkway)
- ▶ **Scenario 2** | E+C base, plus grade-separated rail crossing at 27<sup>th</sup> Street
- ▶ **Scenario 3** | E+C base, plus Beltway coded at 55 mph speed
- ▶ **Scenario 4** | E+C base, plus Beltway coded at 65 mph speed

Each scenario is briefly described below. Figure 5-8 through Figure 5-11 display the planning level capacity (LOS) results for each scenario. It should again be noted that the LOS results consider rail delays in the region and as such do not represent a typical LOS analysis, but instead represent areas that might anticipate the greatest travel delay.

Scenario 1 | Existing plus Committed (E+C) improvements (including grade separation at Brush College and East Faries Parkway)

The 2045 E+C scenario provides a baseline condition that other year 2045 scenarios can be compared against. The most significant improvement included in this scenario is the completion of

a grade separation at Brush College and East Faries Parkway. This project is currently in phase 2 design, and construction is anticipated to begin in the next few years. It should be noted that this grade separation does not include the overpass at the current NS underpass, just south of Faries Parkway. This would be a separate stand-alone project.

### Scenario 2 | E+C base, plus grade separation at 27<sup>th</sup> Street

This scenario includes a proposed grade separation of the rail crossing along 27<sup>th</sup> Street. This improvement is modeled by increasing the travel speed along 27<sup>th</sup> Street, thus eliminating the delay factor in the base model. This improvement would increase the efficient movement of trucks into and out of the MIP by eliminating the at-grade rail crossing delays. Benefits from this project would accrue as a result of a reduction in travel time for shippers and the public, a reduction in miles traveled and associated emissions, and improved safety for shippers and the general public due to the removal of the at-grade crossing.

### Scenario 3 | E+C base, plus Beltway coded at 55 mph speed

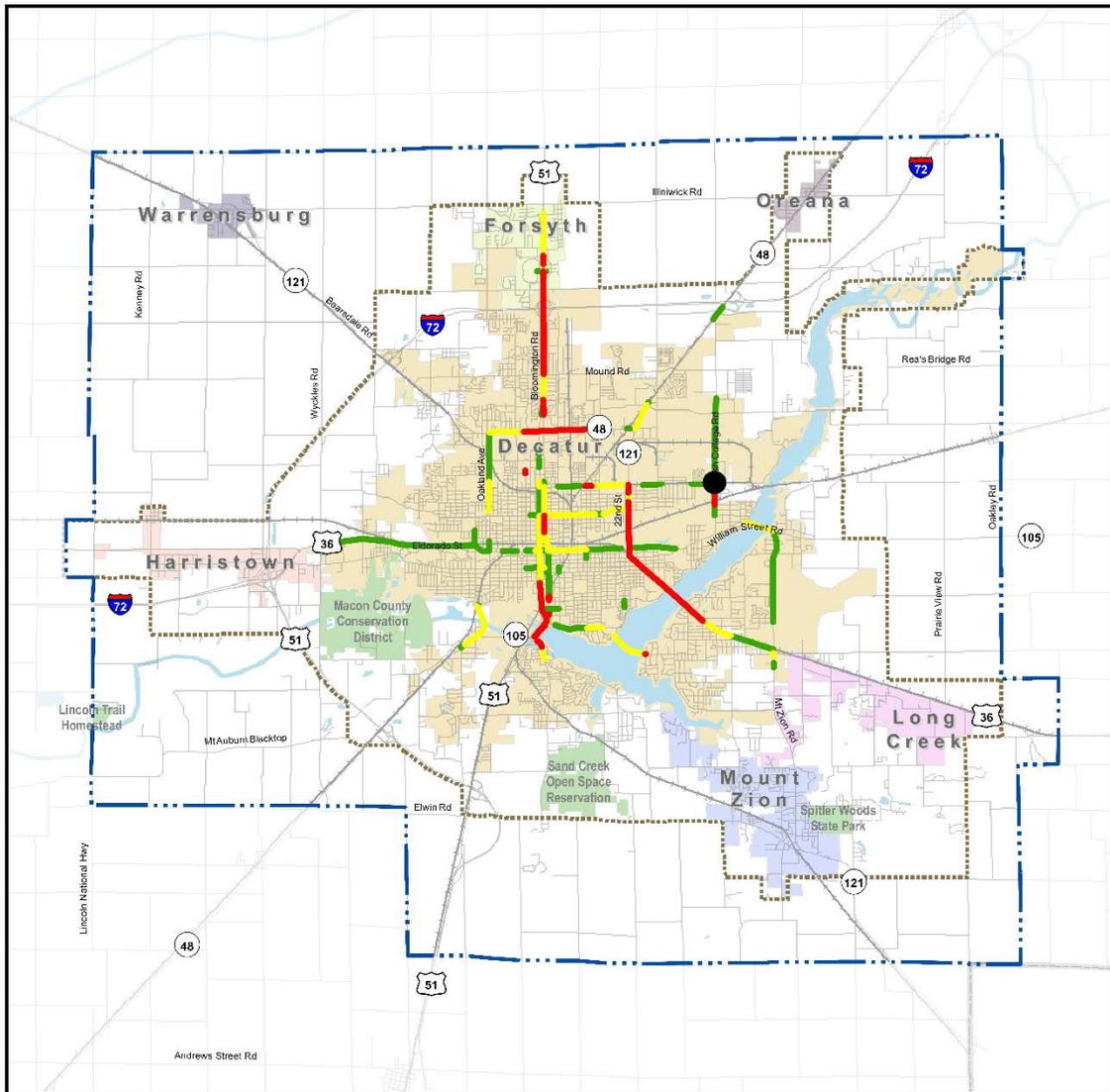
This scenario uses the E+C base network and includes the addition of the Beltway. Under this scenario, a speed of 55 mph is assigned to the Beltway.

The Beltway has been part of DUATS LRTP for a number of years. Completing the Beltway would eliminate at-grade railroad crossings on the local road network, reduce congestion and travel times for residents, remove trucks from downtown Decatur, and improve transit reliability. The Beltway is a proposed 24-mile limited-access roadway alignment that would connect US-51 south of Decatur to I-72 in the far northeastern portion of Decatur at the interchange with IL-48 via a circumferential “outer loop” in the southeastern portion of the MPA. From US-51, the route would travel east along Elwin Road, curve southeast near Karl Road, straighten out and continue east along Sefton Road, turn north along 85<sup>th</sup> Street, curve west near IL-24, turn north and run parallel to Christmas Tree Road, curve northwest between IL-22 and Garver Church Road, and finally terminate along IL-48 near the interchange with I-72.

### Scenario 4 | E+C base, plus Beltway coded at 65 mph speed

Scenario 4 is the same as Scenario 3; however, the speed of the Beltway was modeled at 65 mph as opposed to 55 mph.

Figure 5-8: Scenario 1 – E+C (includes grade separation at Brush College & Faries Parkway)



- Legend**
- 20-Year MPA Boundary
  - DUATS Urbanized Boundary
  - Railroad
  - Approaching-Capacity
  - At-Capacity
  - Over-Capacity
  - Future Improvement

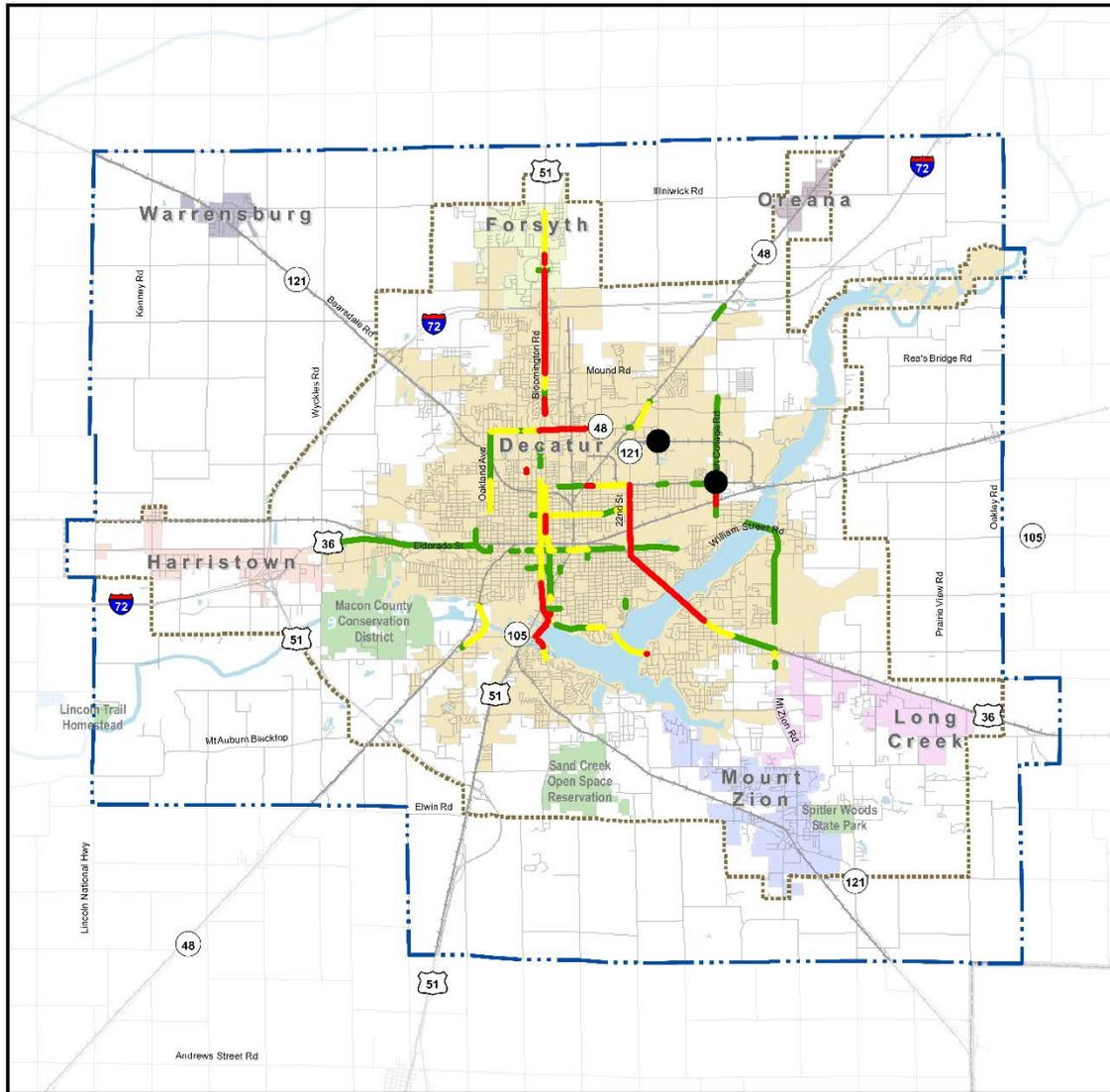


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Data Sources: Illinois DNR, IDOT, US Census, Macon Co, DUATS  
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Figure 5-9: Scenario 2 – E+C (plus 27<sup>th</sup> Street Grade Separation)



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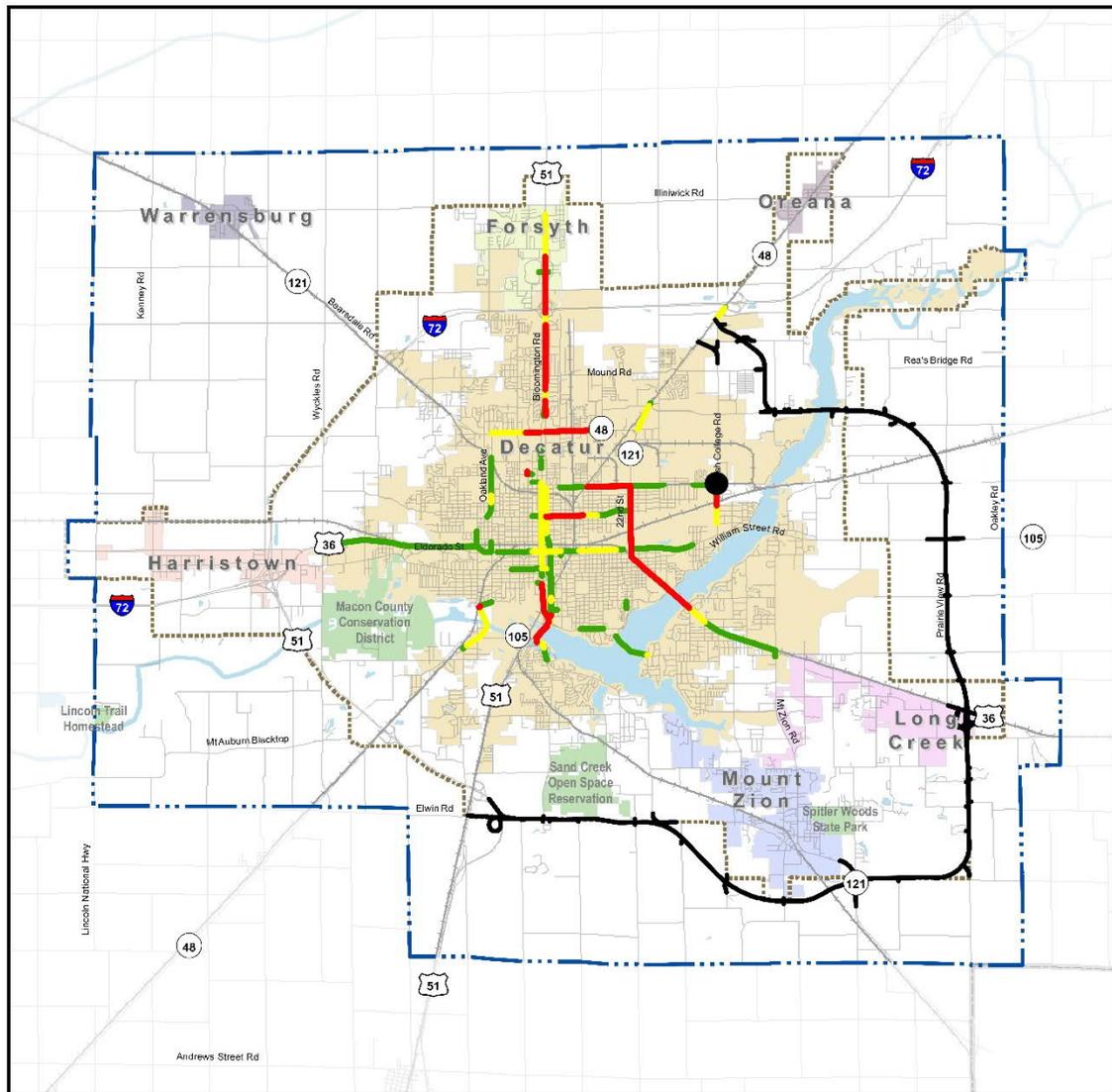


Miles

**2045**  
**Long Range Transportation Plan**  
 Decatur Urban Area Transportation Study

Data Sources: Illinois DNR, IDOT, US Census, Macon Co, DUATS  
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Figure 5-10: Scenario 3 – E+C (plus Beltway at 55 mph design speed)



**Legend**

- 20-Year MPA Boundary
- DUATS Urbanized Boundary
- Railroad
- Approaching-Capacity
- At-Capacity
- Over-Capacity
- Future Improvement

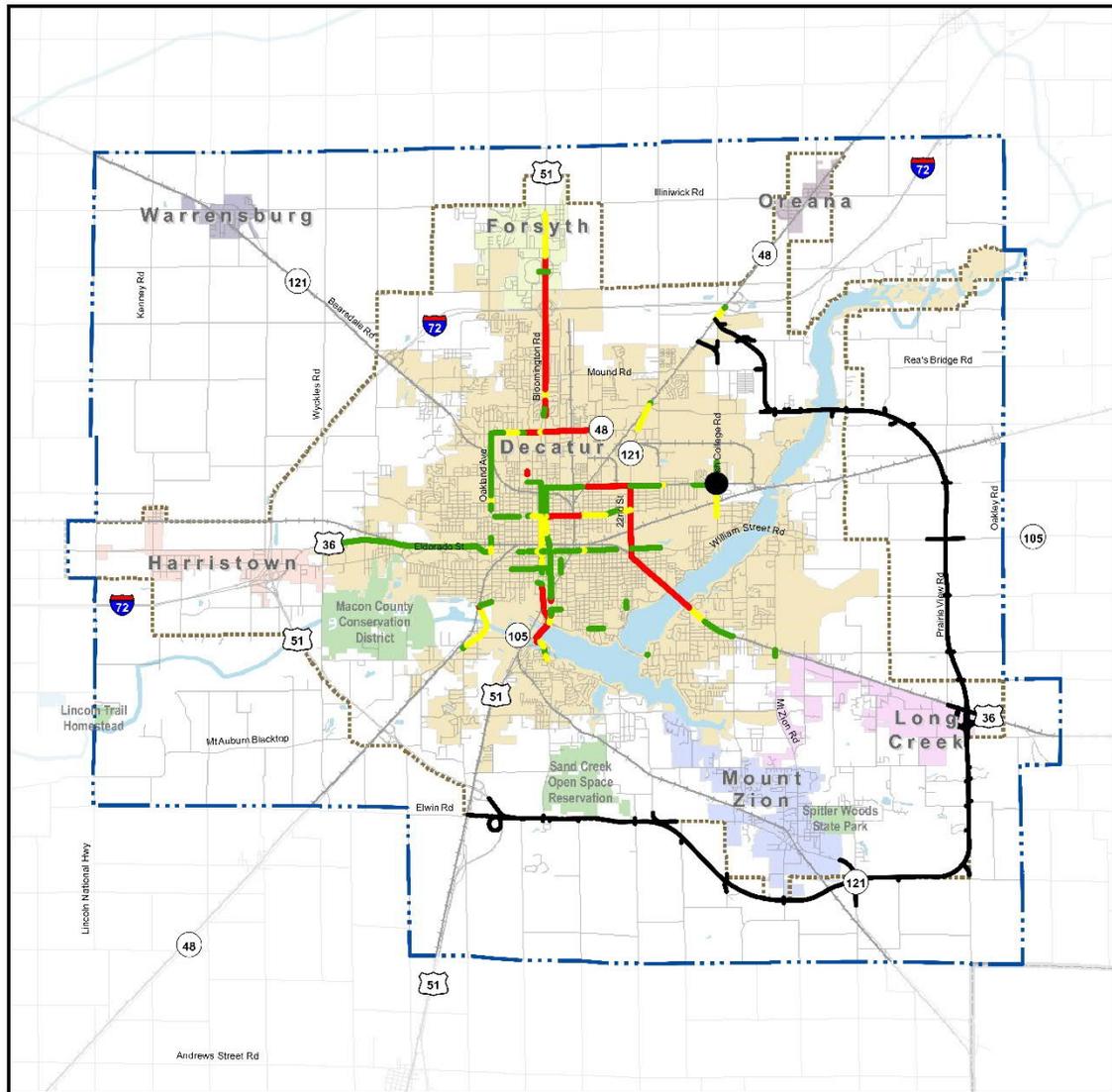


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Data Sources: Illinois DNR, IDOT, US Census, Macon Co, DUATS  
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Figure 5-11: Scenario 4 – E+C (plus Beltway at 65 mph design speed)



**Legend**

- 20-Year MPA Boundary
- DUATS Urbanized Boundary
- Railroad
- Approaching-Capacity
- At-Capacity
- Over-Capacity
- Future Improvement



2.5

Miles

Data Sources: Illinois DNR, IDOT, US Census, Macon Co, DUATS  
 File: \usochg1fs001\prod\Projects\60604788\1900\_CAD\_GIS\920\_GISMXDs\LOS\_2045ECBeltway65.mxd

Capacity Analysis

The 2045 model results were compared to the roadway capacities to identify the volume-to-

capacity ratios. Using the same planning level of service thresholds as used for the existing conditions analysis, the future year miles of roadways approaching-capacity, at-capacity, and over-capacity were identified. Again, these results reflect overall travel delay and not typical LOS results due to the frequent at-grade rail crossing delays. Table 5-3 summarizes the 2045 capacity results for each scenario.

Table 5-3: Capacity Results (2045 Scenarios)

	Miles of LOS E	Miles of LOS F	Total (LOS E and F)
2015 Base Year	1.1	0.8	1.9
2045 Base Year	4.6	3.4	8.0
2045 Scenario 1 (E+C)	4.4	3.1	7.5
2045 Scenario 2	4.9	3.6	8.5
2045 Scenario 3	3.7	3.0	6.7
2045 Scenario 4	3.7	3.1	6.8

Overall, scenarios 3 and 4 (which include the Beltway) are projected to have the greatest benefit in terms of reducing travel delays within the region. The remaining delays are the result of at-grade rail crossings which continue to cause delays. Additionally, delays are also likely to be observed during a.m. and p.m. peak hours, but extended areas of recurring congestion are not anticipated. The Decatur Supply Chain Network Planning and Optimization Study further discusses the model results, which suggest daily vehicle hours traveled (VHT) on Macon County roads would be reduced by 1,612 hours assuming a 55 mile per hour speed limit and 2,203 hours assuming 65 miles per hour.

While the Beltway has positive benefits for the Macon County road network in terms of reducing congestion and the time residents will spend traveling, the number of vehicle miles traveled (VMT) will increase due to the physical length of the route compared to routes through the city of Decatur. As noted in the study, the increase in VMT is a disbenefit, but overall the additional benefits of the Beltway far outweigh the increase in VMT.

## PUBLIC TRANSPORTATION NEEDS

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Maintaining a reliable public transportation system provides an important mobility option to residents, workers, and students within the DUATS region. In many instances, public transportation is the only available or affordable travel option for area residents (who may be termed transit captive riders, as opposed to transit choice riders, i.e., those who choose to use transit). Without public transportation services, these transit captive riders would be unable to pursue job opportunities or complete daily personal, medical, and social tasks or activities. Identifying the future needs of transit captive and choice riders is an important element in an on-going effort to develop an expanded, reliable multimodal transportation system. The following highlights future transit needs and potential opportunities within the DUATS region.

### Extended Evening Service

Many employment opportunities within the Decatur region are industrial/food processing jobs which operate around the clock. Currently, public transportation is not a viable option for individuals working late evening and early morning shifts. Extended evening service could benefit persons working unconventional hours outside regular transit service. In particular, some second- and third-shift employees with limited transportation options could potentially gain employment if extended evening service was available.

Critical to the effectiveness of extended evening service is coordination between transit providers and employers to ensure transit service is coordinated with shift changes. Furthermore, more creative mobility solutions—beyond typical fixed-route service—could be explored. This could potentially include programs such as the sponsorship of vanpools or other shared mobility options for workers needing transportation outside of existing fixed-route service windows. The proposed Comprehensive Operational Analysis (COA) that DPTS will complete in 2020 should explore potential options to provide extended evening service hours.

### Serving Growth Areas

Recent population and employment trends show that Forsyth and Mt. Zion are the fastest growing areas within the DUATS MPA. As growth extends outward from the urban core, low-density development patterns make providing public transit, especially fixed-route service, challenging.

While not an immediate issue, future growth and development on the fringe area of the DUATS MPA may at some point require route modifications or service expansion to best serve the evolving needs of transit riders throughout the region. In particular, the completion of the Beltway is likely to attract new businesses and residents, potentially creating additional demand for future public transportation options.

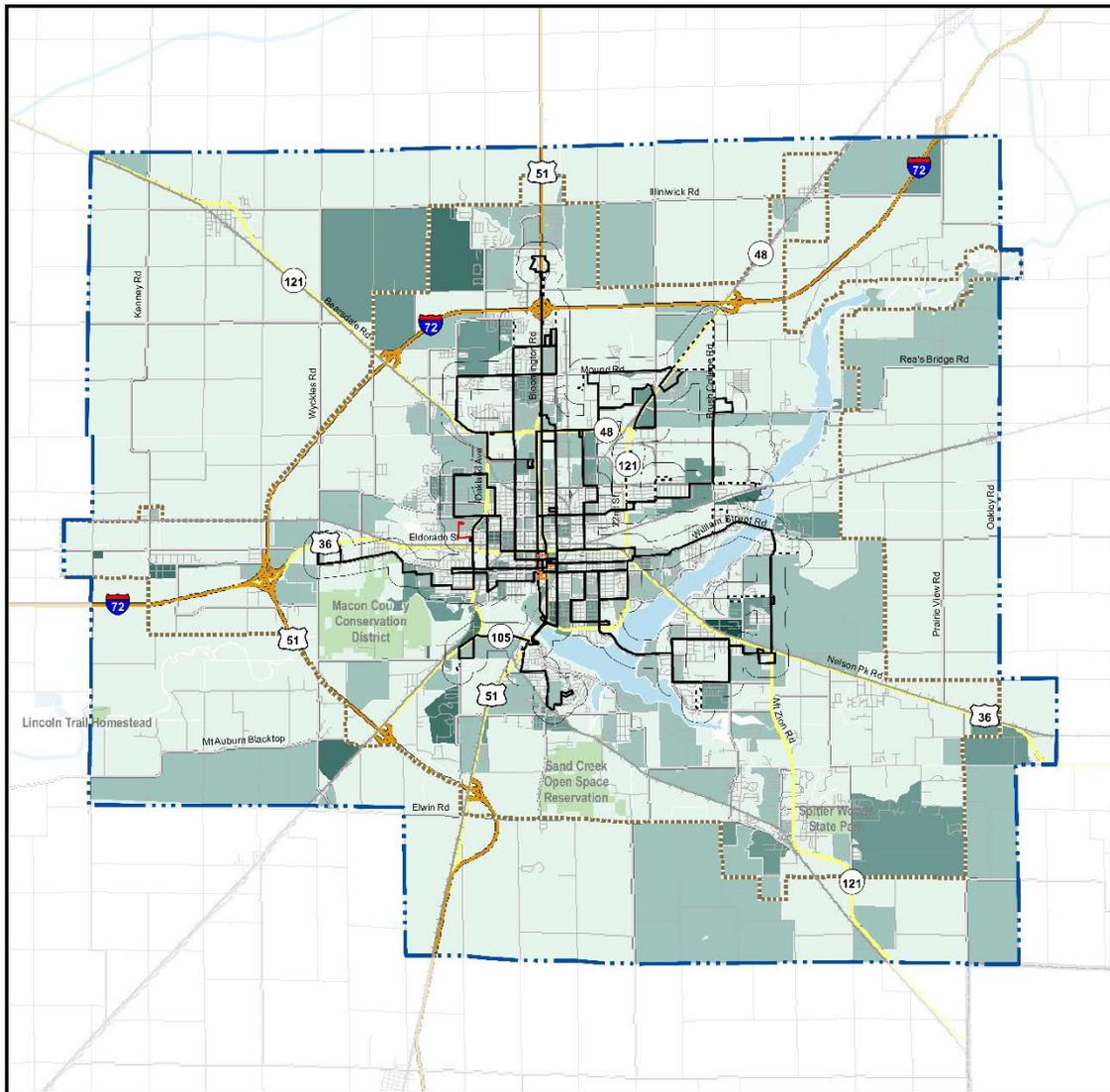
Perhaps the biggest challenge in extending fixed-route service further afield is the need to stay on schedule. The farther routes are extended into developing areas on the fringe, the more difficult it is to adhere to scheduled bus service, especially if at-grade rail crossings create unexpected travel delays. On the other hand, if routes are extended to the fringe areas, it may be necessary to modify alignments to provide more streamlined service along major roadways. In essence, routes that currently operate on portions of local roadways, or serve neighborhoods or other destinations, might have to be eliminated to extend service coverage farther out and still remain on-schedule. If this were to happen, some riders may need to walk further to reach a bus stop, which would

require adequate pedestrian accommodations (i.e., sidewalks, accessible ramps, marked crosswalks, etc.) and on-going maintenance (i.e., sidewalks in good condition, over-hanging vegetation removed, snow removal, etc.) to ensure adequate network connectivity and accessibility. This is something that should be evaluated in greater detail as part of the DPTS COA.

Future year population and employment projections were reviewed with respect to the current fixed-route transit service area. Based on these projections and assuming the addition of no new transit routes or services, transit service coverage would decrease slightly from 61 percent of the population within the fixed-route service area to approximately 60 percent by 2045. Similarly, 71 percent of employment within the current service area is expected to drop to 70 percent in the year 2045. While not significant declines, this analysis illustrates the trend of growth on the fringe areas, beyond the current transit service area limits.

Figure 5-12 displays the 2045 residential population within a one-quarter mile radius of the DPTS fixed-route bus system. Figure 5-13 displays the projected 2045 employment levels within a one-quarter-mile radius of the DPTS fixed-route bus system.

Figure 5-12: Projected 2045 Population within ¼-Quarter Mile of DPTS Fixed-route Service



**Legend**

- 20-Year MPA Boundary
- DUATS Urbanized Boundary
- Railroad
- Interstate
- Principal Arterial
- ¼ Mile Buffer Transit Route
- Transit Route
- Sup. Service
- Trolley
- MacArthur

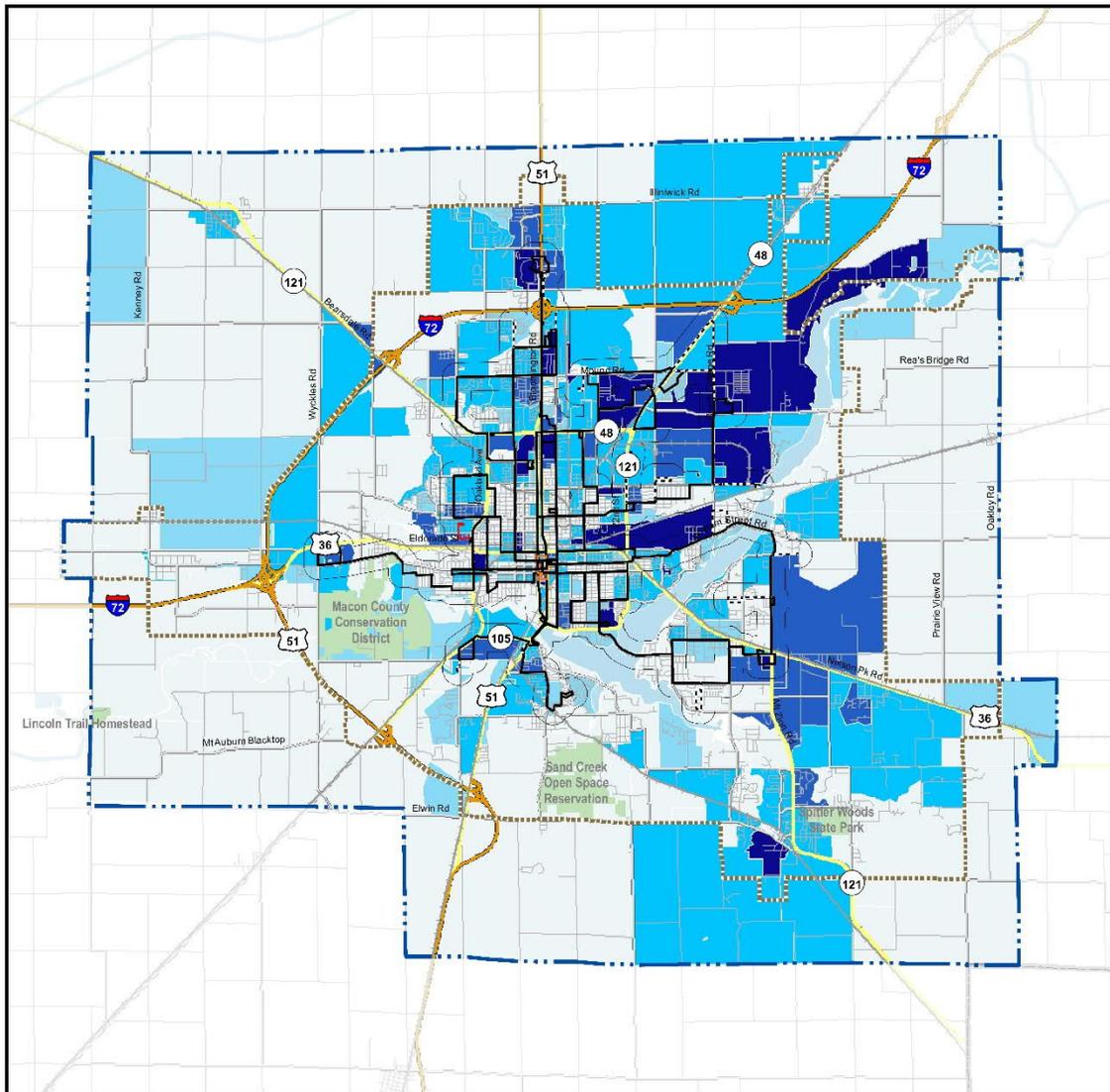


2.5

Miles

Data Sources: Illinois DNR, IDOT, US Census, Macon Co, DUATS  
 File: \\uschg1fs001\prod\Projects\60604788\1900\_CAD\_GIS\920\_GIS\MXDs\Population\_2045\_Transit.mxd

Figure 5-13: Projected 2045 Employment within 1/4-Quarter Mile of DPTS Fixed-route Service



**Legend**

-  20-Year MPA Boundary
-  DUATS Urbanized Boundary
-  Railroad
-  Interstate
-  Principal Arterial
-  1/4 Mile Buffer Transit Route
-  Transit Route
-  Sup. Service
-  Trolley
-  MacArthur



2.5

Miles

Data Sources: Illinois DNR, IDOT, US Census, Macon Co, DUATS  
 File: \\uschg1fs001\prod\Projects\60604788\1900\_CAD\_GIS\920\_GISIMXD\5\Employment\_2045\_Transit.mxd

### Schedule Adherence

Schedule adherence has been a concern of DPTS for years—in fact, dating back nearly two decades when a 2001 DPTS planning study raised this issue. It has also been supported by bus drivers, who have noted several locations throughout the transit service area that have frequent travel delays, mostly related to at-grade rail crossings. Since DPTS uses a pulse system to coordinate transfers at the Severns Transit Center, it is extremely important that each bus route adhere to the set schedule. However, this is often not possible due to at-grade rail crossing delays caused by freight train interference.

In 2011, DPTS collected at-grade rail crossing delay data as part of the DATES project. Between January 2011 and March 2011, DPTS bus drivers would call dispatch when they were delayed due to an at-grade rail crossing delay. Over the course of almost two months (54 operating days, Monday through Saturday), the DPTS recorded 721 incidents where their operations were impacted by train blockages. Of this total, 364 buses—approximately half—had to stop as a result of the blockages, which was almost 7 buses impacted per day. The remaining buses were able to identify the train blockage far enough in advance to deviate to an alternative route to avoid potential delays.<sup>6</sup> In total, nearly 4,500 passengers aboard the delayed buses were forced to wait a combined total of 33.5 hours during the data collection period. Seven buses during this time missed their pulse connection at the transit center, which impacted 40 passengers. The at-grade rail crossings that most often impacted by train blockages included:

- ▶ [Wood Street at MLK Jr. Drive](#) | Detour routes are possible if the train is noticed in time; two bus routes are affected. Plans are identified to improve this intersection;
- ▶ [Eldorado Street east of Morgan Street](#) | Detour routes are possible if the train is noticed in time; two bus routes are affected;
- ▶ [MLK Jr. Drive north of Cerro Gordo Street](#) | Detour routes are possible if the train is noticed in time; one bus route is affected;
- ▶ [Brush College Road at Faries Parkway](#) | No detour routes; one route is affected; and
- ▶ [William Street at 23rd Street](#) | No detour routes; two routes are affected.

Opportunities to minimize or eliminate travel delay for buses should be considered in future planning studies. Eliminating at-grade rail crossing delays remains a priority of the DUATS 2045 LRTP and these types of projects would significantly benefit regional transit operations. Furthermore, as previously discussed, at-grade rail crossing delays could make it difficult to extend fixed-route service to growing areas within the MPA at some point in the future.

### Aging Population

An aging population is an issue that suggests the need to look at alternative transportation options for residents age 65 and older. As the area's population ages in place, there will be a greater need to provide alternative transportation options for many older residents. Complicating the situation is the rural character of many areas of the MPA. While fixed-route transit service will continue to serve the urbanized area well, the real challenge will be in finding viable transportation options for those living in the rural areas, or on the urbanized fringe. The need for demand-responsive transit service could significantly increase in future years and impact the delivery of transit services.

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<sup>6</sup> URS Corporation, Decatur Area Transportation Efficiency Study. September 2013. Pages 54, 55.

### Autonomous / Connected Vehicles

As emerging technologies develop at a rapid pace, it will be important to consider where they will fit into plans for future infrastructure. For example, mobility hubs can incorporate autonomous microtransit shuttles for last-mile trips, charging ports for an electric car-share station, as well as pick-up and drop-off space for transportation network company (TNC) partners. With microtransit filling the role of distribution, transit agencies may be able to focus on line-haul service. And with fewer people accessing stations by car, parking lots could be repurposed to a higher and better use, potentially making room for new trip generators or creating new revenue streams. It remains to be seen what the emerging transportation mobility frameworks of the future will look like upon implementation, but future LRTP updates should monitor the industry for potential impacts to transportation within the DUATS MPA, particularly in context with shared mobility.

### High-Speed Passenger Rail

Over the past two decades there has been various high-level discussions regarding bringing Amtrak passenger rail service to Decatur. Conversations over the past decade have focused on the Midwest High Speed Rail Association (MWHSRA) initiative that would link St. Louis to Chicago, and as part of a potential alignment that would include a stop in the Decatur region. The currently proposed route would run between Champaign and Springfield on a dedicated rail line that would require a new rail alignment somewhere in the DUATS MPA. MWHSRA has promoted the rail project as supporting train speeds as high as 220-mph, which could transport passengers from Chicago to Decatur in one hour and fifteen minutes and to St. Louis in one hour.

A study commissioned by the MWHSRA has demonstrated that this is an attainable and valuable goal for Illinois passenger rail. The findings concluded that a rail route connecting to Decatur, an important center of business in Illinois, would be optimal and allow for electrically powered trains that could operate at high speeds. This high-speed rail project would also bring jobs, revenue, and fast transit options to the citizens of Decatur. Although current federal funding does not support 220-mph service, the feasibility of 220-mph service reported in this study builds a strong case for greater federal commitment to high speed rail funding in the future.

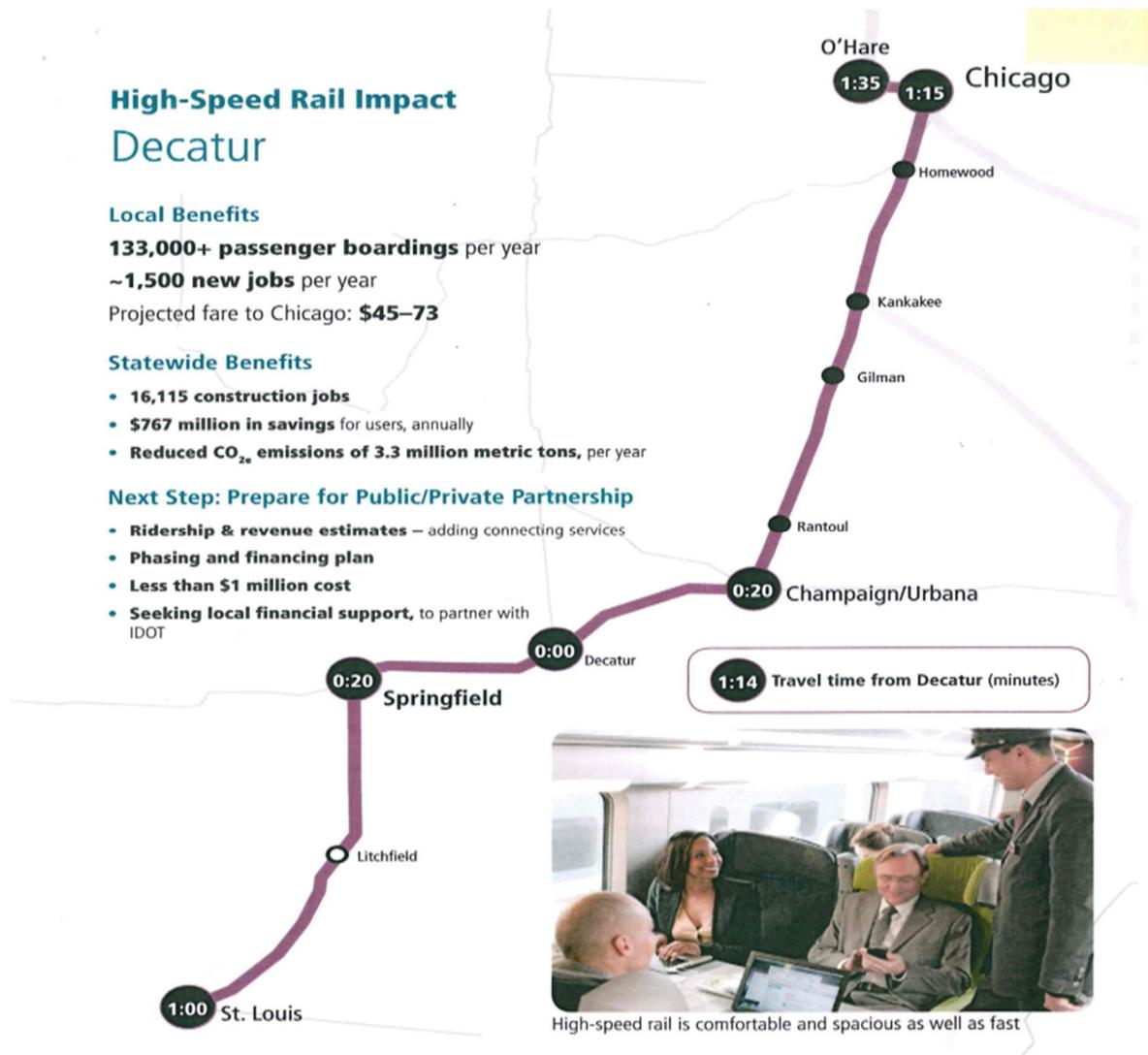
In September of 2013, the University of Illinois, in partnership with IDOT and several consultants, published a feasibility study that evaluated HSR between Chicago and terminal cities of St. Louis and Indianapolis, titled 220 MPH High Speed Rail Preliminary Feasibility Study. A station in Decatur is listed in this study as being one of nine stops between Chicago and St. Louis.<sup>7</sup> This study underscores the fact that planning efforts for high speed rail continue to evolve in Illinois, and potential service and construction work appears to be shifting from long-term to short-term expectations.

Planning for and possibly constructing such a massive transportation project would be of great significance to the Decatur region. Existing freight lines are numerous, the number of trains in and out of the MPA daily is large, and safety, security, operation, etc., would warrant a substantial investment of time, finances, and cooperation. Even with these obstacles, it is in the MPA's best interest to support a future high-speed passenger rail service in Decatur. Figure 5-14 summarizes the elements of a Decatur area high-speed passenger rail service.

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<sup>7</sup> University of Illinois at Chicago and University of Illinois at Urbana-Champaign. 220 MPH High Speed Rail Preliminary Feasibility Study (2013).

Figure 5-14: High Speed Passenger Rail



Source: Midwest High Speed Rail Association

## NON-MOTORIZED NEEDS

The DUATS non-motorized network comprises primarily dedicated trails and is supplemented by on-road bicycle travel. DUATS, along with and through partner agencies, implements the regional trail plan, which has been documented in previous LRTPs. Agency review of the bicycle plan confirms that the primary plan is still relevant to guide future bicycle investments as part of the 2045 LRTP.

DUATS has made progress in planning, designing, and constructing components of its trail system. Most recently, trail segments have been added in the southeast portion of the DUATS MPA. The Decatur Park District is also moving forward with an extension of the Stevens Creek bike trail that will pass under I-72 to connect Cresthaven Park with Timber Lane in Forsyth (Figure 5-15). However, many components of the main north/south axis remain, as well as opportunities to expand the trail system on an east/west basis. Looking out to the year 2045, the primary need is to address major gaps in the network, which can be accomplished by addressing both local and regional components of the non-motorized system.

Figure 5-15: Stevens Creek Bike Trail (Underpass at I-72)



While trails represent the main focus of the DUATS non-motorized network, on-street bicycle accommodations—or non-motorized improvements incorporated into roadway projects—could provide critical connections to supplement the trail system. The application of Complete Streets principles can help in strengthening the DUATS non-motorized network. Complete Streets is a concept that can be applied in planning or designing a new roadway or repairing/replacing an existing roadway. Identifying ways to eliminate non-motorized system gaps could be as easy as restriping roadways to allocate more space to bicyclists or it could involve more extensive improvements such as reconstructing roadways to incorporate on-street bicycle facilities or adjacent sidewalks and/or trails.

### At-grade Rail Crossings

While travel delays experienced by motorists are the most common among all roadway users, at-grade rail crossings also impact bicyclists and pedestrians. Beyond having to wait the same amount of time to cross, these users are potentially exposed to increased safety concerns. Most notably, bicyclists and pedestrians are exposed to weather conditions, including extreme heat and cold—something that motorists can largely avoid through climate control conditions within their vehicles. For these reasons among others, at-grade rail crossings are a major concern to non-motorized users. As such, the strategic development of grade-separated facilities at key locations throughout the MPA is a critical component of achieving a high degree of mobility for non-motorized users, as well as enhancing safety.

### Bicycle Travel in Downtown Decatur

The current multi-use trail system serves primarily the outer areas of the MPA. Bicycle travel in downtown Decatur is limited by existing roadway configurations that do not contain design elements that are supportive of bicycle travel. Opportunities to improve bicycle travel along existing roadways should continue to be considered as part of any roadway reconstruction project throughout the MPA. Consistent signage, bicycle parking, and on-street facilities should be identified and provided in various locations in the CBD to improve bicycle travel in the downtown area.

### Lake Decatur Crossings

The Lake Decatur area contains great opportunity for recreational activities and providing safe, well connected bridge crossings are an important element of the future non-motorized network.

### Bicycle Plan

It has been several years since DUATS adopted the Decatur Urbanized Area Comprehensive Bicycle Plan (1999). DUATS has proposed that this plan be merged with the Metro Area Greenways Plan, although this has not occurred. An updated and merged Bicycle Plan would be of great value to local governments and interested parties in expanding their non-motorized networks and developing ways to enhance bicycling conditions in the MPA. A Bicycle Plan could also provide a strategy for prioritizing and sequencing projects both local and regional in nature. Lastly, the Bicycle Plan would provide an updated list of potential linkages between the central business district, the Severns Transit Center, and other destinations.

## FREIGHT NEEDS

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The movement of commodities, goods, and raw materials via truck and rail is critical to supporting the economic vitality of the region and meeting the operational requirements of businesses and industries in the MPA. However, truck and rail traffic often conflict with the movement of other surface transportation modes—primarily private automobiles, transit vehicles, and non-motorized users. The operation of trucks and trains also has a negative impact on quality of life issues—delays, noise, and air quality. As such, the primary objective of planning for freight traffic focuses on balancing the mobility needs of trucks and rail with the preservation of a high quality of life for residents throughout the MPA.

### Truck Movements

Given the importance of truck traffic to the economic activity of the region, there is a need to better accommodate truck movements. In this regard, the Beltway project has been identified as the best available option for providing enhanced connectivity between the interstate and key truck routes along the southern and eastern areas of the region.

As previously noted, at-grade rail crossings are an issue in the MPA. Not only does the movement of rail trains at these locations cause a negative impact on the traveling public, but they also cause significant delays for trucks. Stalled large trucks, such as tractor trailers, have an even greater impact on overall congestion associated with grade crossings since their size consumes a larger portion of the roadway than do private automobiles.

Another issue related to truck movements involves the expansion of the Midwest Inland Port (in the NW quad of Brush College and Faries). This development is likely to result in increased truck and rail traffic. Much of this expansion occurred after the completion of the DATES project, a fact which illustrates how quickly developments like this can impact the transportation network.

### Brush College Road Improvements

Brush College Road has long been identified as a corridor in need of both rail and truck improvements. A Brush College Road study investigated the future needs and issues associated with this roadway and identified several alternative improvements that could be made.<sup>8</sup> These improvements included:

- ▶ [Grade Separation at NS Rail Yard](#) | Included consideration of both an overpass and underpass, with the overpass option being selected as the preferred alternative;
- ▶ [Grade Separation at Faries Parkway](#) | Since an overpass was selected for the NS Rail Yard grade separation, an overpass was recommended for the Faries Parkway grade separation due to the proposed elevation of Brush College. Additionally, two different options were considered for building a ramp to connect Faries Parkway and Brush College Road.

The grade separation at Faries Parkway is currently being designed and will begin construction in the next few years. Funding for the grade separation at the NS rail yard has not been identified.

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<sup>8</sup> City of Decatur, Brush College Road Improvement Study – Combined Design Report, pg. 75 (2014)

### Relocation of Rail Facilities beyond the Urbanized Area

As part of the DATES project, several different options for improving freight rail-related congestion and delay issues in the MPA were considered. This included the consideration of significant alterations to the configuration of tracks in the region. Ultimately, the alternatives that proposed rerouting rail traffic tracks (estimated at \$33.9 million) and relocating the DREI yard outside of the urbanized area (estimated at \$19.1 million) were both judged too expensive and disruptive to the area to warrant further consideration. Furthermore, the amount of funding necessary for either project could be put to more productive use for other smaller, targeted improvements.

## AVIATION NEEDS

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From an LRTP perspective, recent improvements have positioned the airport to capitalize on future year improvements. Plans to construct the Beltway would greatly improve regional access and help attract new businesses to the industrial park. The following is a list of other future needs for the Decatur Airport:

- ▶ **Airport Operations** | Continued investment in the Decatur Airport is necessary to maintain and enhance its position as a passenger facility and airfreight hub of regional significance. Commercial airline service has continued to see an increase in annual enplanements and as such the airport may be in a position to expand air service in the future.
- ▶ **Airport Expansion** | Expansion plans are critical to the continued development and success of the Decatur Airport. Coordinated land use and transportation planning is needed to ensure that airport expansion plans can be implemented. In particular, it is important that new commercial and residential development does not encroach on the airport. Furthermore, future development should be considered in relationship to the Beltway to accommodate future airport expansion as well as providing the appropriate regional and local access/connectivity.
- ▶ **Development of the Industrial Park** | The Decatur region has been focused on attracting new businesses and industries to the area and one goal of the LRTP is to support economic development opportunities within the MPA. Development of the airport and industrial park are considered important to attracting new economic development opportunities to the region.
- ▶ **Improved Accessibility** | The Decatur Airport is located on the eastern edge of the city and can be accessed via US-36, IL-105, and IL-121. There is currently no direct access to the airport by interstate or other limited-access highways. Improved accessibility is critical to the continued development and success of the Decatur Airport. Completing the Beltway will help address this issue but additional improvements to area roadways would further position the airport, and adjacent industries, as a desired location for businesses within the region.



## Chapter 6

# LRTP PRIORITIES AND RECOMMENDED PLAN

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This chapter summarizes the DUATS 2045 LRTP **priorities, recommended plan** and **supporting strategies and policies**.

The chapter identifies priority projects based on how they address the LRTP goals and objectives and is supplemented with an analysis of revenues, expenditures, and funding sources. It also includes an environmental justice and environmental mitigation analysis.

## L RTP PRIORITIES

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Chapter 5 outlined future year multimodal transportation needs, the majority of which come with substantial costs and cannot be implemented/constructed with current or projected transportation revenues. Given these funding constraints, this chapter sets forth priorities to help inform and guide future planning efforts. The summary of transportation priorities is followed by a fiscal constraint analysis identifying projects likely to be funded for implementation. It is important to note that the LRTP is viewed as a living document, and therefore projects can be amended prior to the next LRTP update to respond to changing priorities or conditions, if needed.

### Regional Transportation Priorities

It is impossible to predict exactly what the DUATS MPA population, employment, and transportation system will look like in 25 years. For this reason, the primary purpose of the LRTP is to establish a framework that can be responsive to change in order to best address regional transportation priorities. As previously documented, the DUATS MPA has experienced a downward trend in population in recent decades. This trend, projected to continue over the next two decades, is offset by employment projections that anticipate the region adding nearly 3,000 jobs over the next 25 years. The LRTP assumes that the addition of these jobs will have a positive impact on population growth within the region, resulting in a modest increase of 5,000 persons by the year 2045.

In order for the DUATS MPA to realize this growth, it is critical to create an environment that provides current businesses and industries the opportunity to expand operations, while also attracting new employers and producers to the region. The 2045 LRTP identifies transportation infrastructure projects that should help spur economic development, in addition to enhancing safety and providing a range of reliable transportation alternatives to area residents. The DUATS 2045 LRTP priorities, summarized below and displayed in Figure 6-3, will help move the region closer toward making the 2045 vision a reality.

- 1) Brush College Road Corridor Improvements. Brush College Road is an important corridor that provides access to major regional employers. Previous LRTPs have identified the need to reduce at-grade rail crossing delays and improve travel flow along the corridor through two primary improvements: 1) grade separating the rail crossing immediately north of Faries Parkway by constructing an overpass, and, 2) constructing an overpass at the current NS rail yard underpass. Both projects were identified as priorities in the previous LRTP and have since been evaluated in more detailed planning and engineering studies.

What initially began as a study to evaluate potential improvements at the deteriorating NS rail yard underpass led to a more comprehensive study of the corridor extending from William Street (IL-105) to Faries Parkway. The rail overpass at Faries Parkway is currently being designed, with construction expected to begin in the next few years. The NS rail yard overpass remains an unfunded priority that would address the current underpass, which is deteriorating and has documented safety, design, and capacity issues that hinder traffic flow and the efficient movement of freight within and through the region. Figure 6-1 displays

a comprehensive overview of the Brush College Road corridor improvements. Figure 6-2 displays a rendering of the proposed NS rail yard overpass.

Figure 6-1: Overview of Brush College Road Corridor Improvements



Figure 6-2: Proposed Brush College Road Overpass at NS Railyard



SOURCE: AECOM.

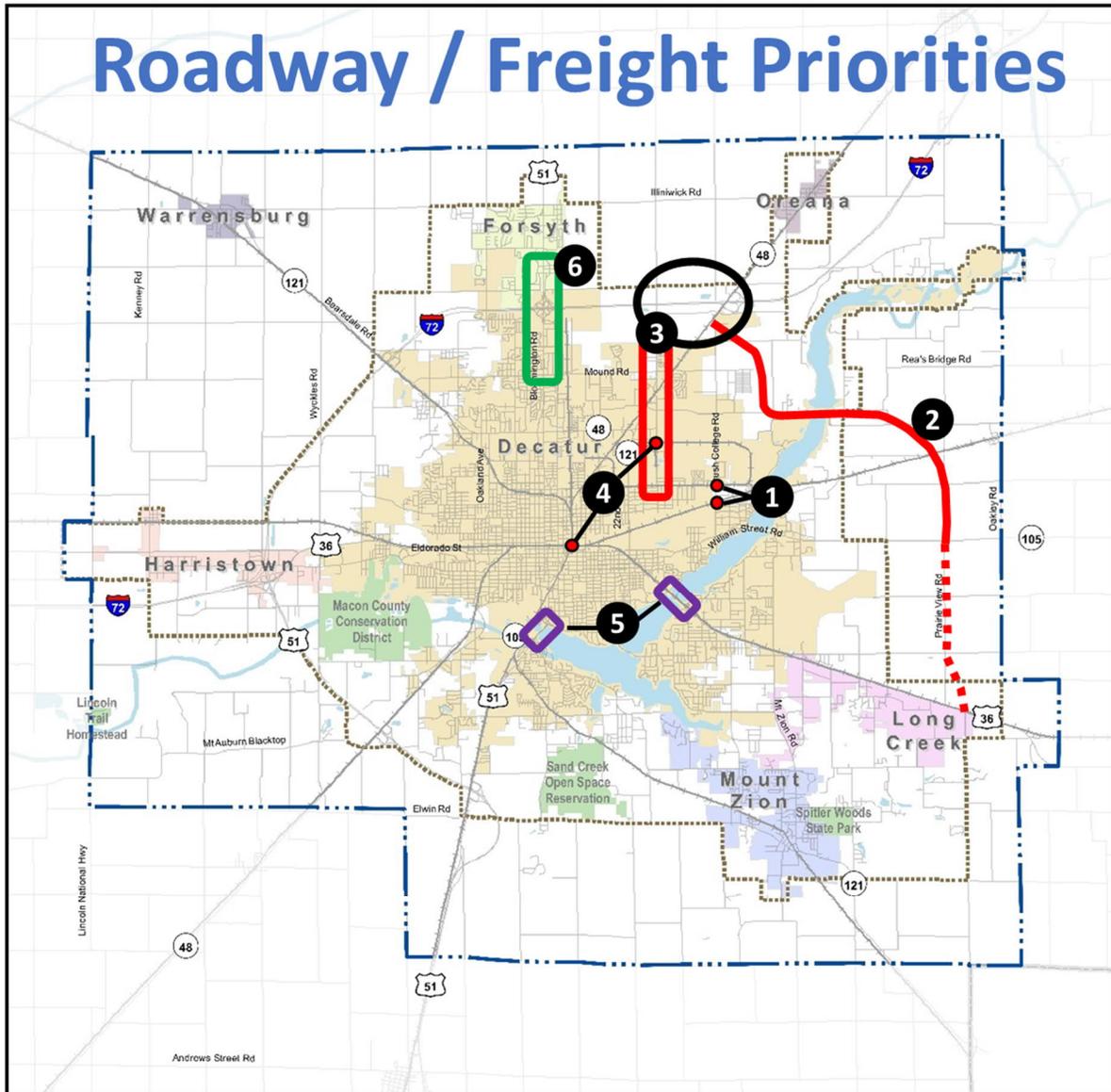
- 2) **Beltway.** The Beltway is a planned outer roadway that—when complete—will connect IL-48 in the northeast portion of the MPA to US-51 in the southwest. The project will provide a much-needed expressway in the east and southeast portion of the MPA that will enhance connectivity to the airport, support economic development, and better accommodate regional truck traffic. In previous LRTP documents, the DUATS Technical and Policy committees identified the segment from IL-48 to US-36 as Phase One of the overall project, and this section of the project remains a top priority in the 2045 LRTP as it would greatly enhance access between the airport and I-72. An improvement to Reas Bridge Road, over Lake Decatur, is programmed in the current TIP and the segment from IL-48 to IL-105 is also identified in the TIP. It is important to note that the completion of the entire Beltway remains a priority for the DUATS MPA.

The Beltway supports the DUATS 2045 LRTP goals and objectives and addresses the ten FAST Act metropolitan transportation planning factors. The project supports economic development, enhances safety, increases security, increases accessibility/mobility, enhances quality of life, promotes the integration and connectivity of the transportation system for people and freight, promotes efficient system management, helps preserve existing transportation facilities, improves resiliency and reliability of the transportation system, and enhances travel and tourism (especially supports the Farm Progress Show).

- 3) **27<sup>th</sup> Street Corridor Improvements.** 27<sup>th</sup> Street is a major north-south corridor that provides access to area industries. This corridor continues to grow in importance given the direct access it provides to the Midwest Inland Port (MIP). The City of Decatur plans to study this corridor further as part of a comprehensive industrial transportation plan. It is anticipated that this study will identify projects to enhance accessibility, improve connectivity, reduce travel delays, and support economic development. Exploring options to enhance access to I-72 and the Beltway are important elements that should be evaluated to enhance regional connectivity. As specific projects are identified in this corridor study, DUATS can amend the LRTP to include regionally significant projects, if needed.
- 4) **Rail Crossing Improvements.** At-grade rail crossing delays throughout the DUATS MPA have long been a concern to the traveling public and to local businesses and industries. The DATES project, completed in 2013, was the first regional study to quantify travel delay caused by frequent train blockages. More importantly, the DATES results highlighted the challenges and negative impacts that rail crossing delays have on local businesses and industries, and further demonstrated the obstacles to retaining and attracting new businesses to the region. The previously discussed planned construction of an overpass of the rail crossing at Brush College Road at Faries Parkway will eliminate the top at-grade rail crossing delay in the region. This will be a substantial improvement to regional traffic operations; however, the construction of additional overpasses along US-36 and along 27<sup>th</sup> Street would have significant operational and economic benefits for the DUATS MPA.

- 5) **Lake Decatur Bridge Crossing Improvements.** The US-51 and US-36 Lake Decatur bridges are among the highest traffic volume locations within the Decatur region. Recent traffic counts on US-51 show the bridge carrying 24,600 vpd and the US-36 bridge carrying 21,300 vpd. The current design of these structures does not provide adequate space to accommodate non-motorized users (bicyclists and pedestrians). These bridges also carry over 1,000 trucks per day (US-51 carries 1,325 and US-36 carries 1,250), which only adds to the difficulty in crossing. Constructing new bridge crossings to current design standards would enhance safety at these locations, and further enhance access throughout the region.
- 6) **US-51 Traffic Operations and Safety.** The segment of US-51, just north of the I-72 interchange, has the highest observed traffic volumes (27,400 vpd) within the DUATS MPA. Opportunities to better accommodate traffic flow and enhance access in this area should be explored. In addition, this area also has the highest number of traffic crashes (121 recorded between 2012 and 2016). South of I-72 is also a high traffic area, with 76 crashes at the intersection of Mound and 75 crashes at the intersection of Ash, which ranks these in the top 10 crash locations within the MPA. A traffic study along this stretch of US-51 could potentially identify safety and access improvements to enhance traffic operations.
- 7) **Increased Focus on Preventative Maintenance.** [Not Displayed on Figure 6-3] The on-going preservation of existing transportation infrastructure is a critical—and costly—component of maintaining a safe, efficient, and reliable transportation system. A 2045 LRTP review of progress toward meeting national performance measures indicates that the Decatur region is lagging behind state targets for maintaining NHS non-interstate segments in “good” condition. The concern about pavement condition was also identified as a top priority in the 2045 LRTP community survey. DUATS should pay close attention to this issue and prioritize improvements that make progress toward improving pavement conditions within the region. On a related note, the poor pavement condition within the region is due in large part to the heavy truck traffic. The previously discussed Beltway would likely help improve the pavement condition situation by redirecting trucks to a more appropriately designed facility which would better accommodate regional truck travel.

Figure 6-3: 2045 LRTP Priorities



**Legend**

- Metropolitan Planning Area Boundary
- Urbanized Boundary
- Railroad



Data Sources: Illinois DNR, IDOT, US Census, Macon Co, DUATS  
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## POTENTIAL ROADWAY/FREIGHT PROJECTS

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A range of potential roadway/freight projects were identified to address the LRTP priorities. DUATS member agencies reviewed the 2040 LRTP project list as a starting point to identify projects that were completed or may no longer be needed. Current and projected future transportation needs were also considered in identifying potential projects.

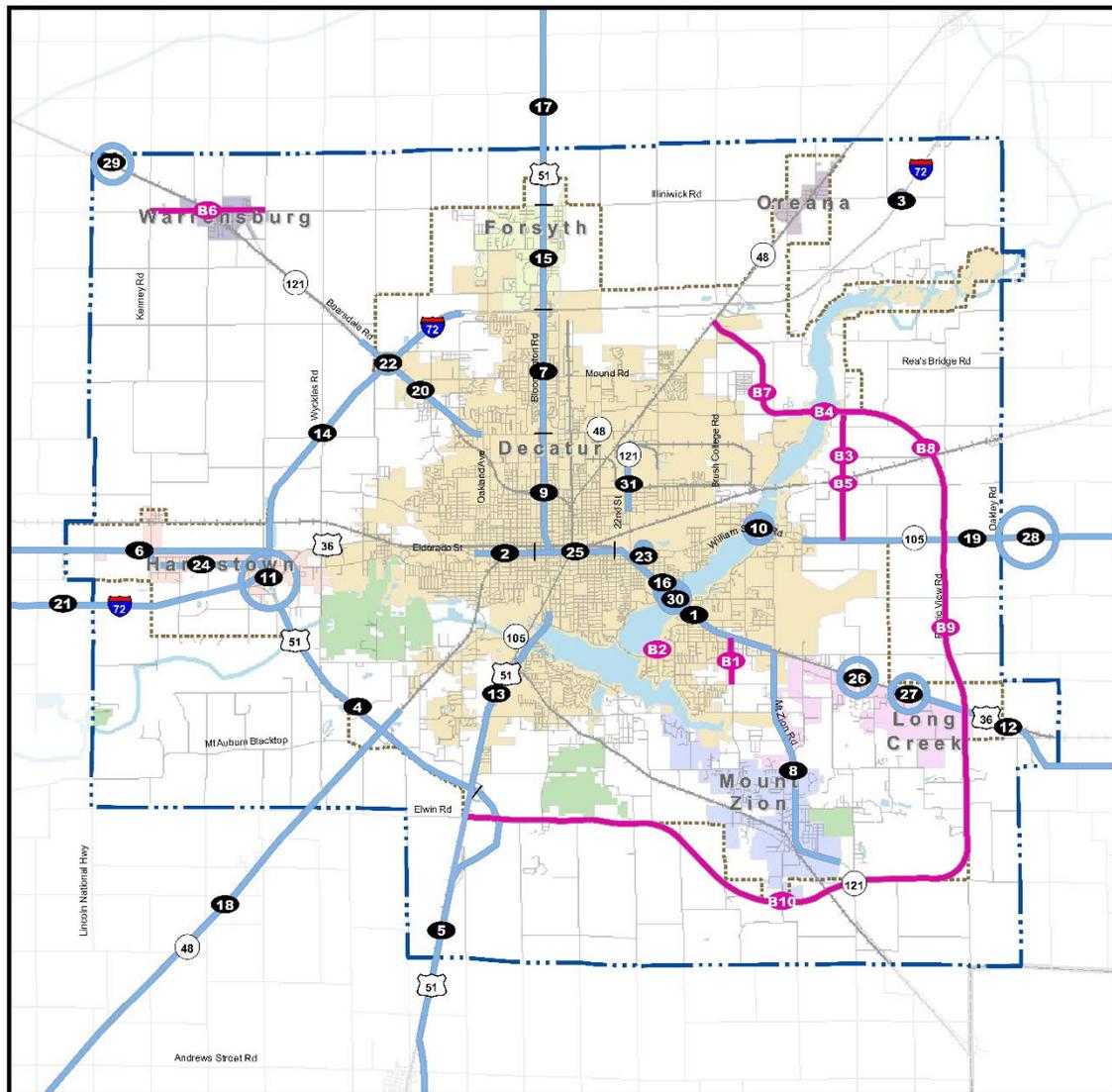
Figure 6-4 displays the IDOT and Macon County projects. Table 6-1 summarizes these projects. Figure 6-5 displays projects identified for Decatur, Forsyth, and Mt. Zion. Table 6-2 summarizes these projects. Individual maps for each community are shown for Decatur (Figure 6-6), Forsyth (Figure 6-7), and Mt. Zion (Figure 6-8). Estimated project costs, if available, are also provided. In most cases the project costs represent planning level estimates in 2019 dollars.

### Considerations in Identifying Projects

The DUATS MPA is somewhat unique in terms of identifying future transportation investments. Unlike many metropolitan areas that have reoccurring traffic congestion, current and projected traffic volumes in the DUATS MPA are not expected to be a significant issue (outside typical a.m. and p.m. peak hour traffic conditions that experienced increased traffic). I-72, as previously documented, has daily traffic volumes well below typical interstates and there is plenty of available capacity to accommodate additional traffic. The DUATS region is also projected to have relatively modest growth and traffic volumes are not expected to increase to levels that would require major roadway capacity projects. The area with the highest traffic volumes, US 51 north of I-72, is planned to be studied for potential intersection/traffic improvements that would likely identify projects to improve capacity and traffic flow.

As previously documented, the DUATS MPA has a higher than average freight (truck and rail) movement which creates other challenges for the region. These include frequent at-grade rail crossings which impacts the traveling public and causes trucks to be delayed resulting in inefficiencies for local businesses/industries. The heavy truck traffic also causes wear and tear on the existing roadways, often resulting in pavement and bridge conditions that deteriorate at a faster pace than other communities. The primary projects that would address these concerns are the development of the Beltway and construction of grade separations within the region. These improvements come with significant cost estimates that when looked at as part of the fiscally constrained analysis result in most of the projects being included as unfunded needs on the illustrative list of projects. Outside these investments, the majority of projects within the DUATS MPA are focused on maintaining the existing transportation facilities. Fiscally constrained projects are discussed in the following section.

Figure 6-4: IDOT and Macon County Projects



- Legend**
- 20-Year MPA Boundary
  - DUATS Urbanized Boundary
  - Railroad
  - Macon County Project
  - IDOT Project



2.5

Miles

Data Sources: Illinois DNR, IDOT, US Census, Macon Co, DUATS  
 File: \\uschg1fs001\prod\Projects\60604788\1900\_CAD\_GIS\920\_GIS\MXDs\CommittedProjects\_IDOT.mxd

## Recommended Plan

Table 6-1: IDOT and Macon County Project List

Project / Description	Approximate Location	Estimated Cost
1. US 36/ILL 121 - Resurfacing, ADA improvements and traffic signal modernization.	3.79 miles from 19th St to 0.4 Mi E of Airport Rd in Decatur	\$ 5,730,000
2. US 36 - Resurfacing, ADA improvements, structure repair and traffic signal modernization	1.22 miles from ILL 48 to Church St in Decatur & W. Eldorado St from ILL 48 to US36	\$ 4,350,000
3. I-72 - Bridge Joint replacement and repairs, deck repairs, and bridge deck overlay	bridge at CH 20 1 mile East of Oreana	\$ 600,000
4. US 51 - Microsurfacing	4.64 miles from 0.8 Mi S of US 36 to 0.3 Mi E of US 51 Busn SW of Decatur	\$ 650,000
5. US 51 - Resurfacing and Bridge joint replacement	9.38 miles from US 51 Bsn SW of Decatur to 0.5 Mi N of Shelby Co Line	\$ 14,690,000
6. Old US 36 - Resurfacing	9.67 miles from Sangamon County Line to US 36 in Decatur	\$ 7,790,000
7. Old US Business 51 - Resurfacing, ADA improvements and bridge joint repair	2.68 miles from I-72 to ILL 121 in Decatur	\$ 4,550,000
8. ILL 121 - Resurfacing, ADA improvements	4.15 miles from US 36 to South Corporate Limits of Mt Zion	\$ 7,140,000
9. Old US 51 Business - Resurfacing, ADA improvements	4.27 miles from ILL 121 to US 36 in Decatur	\$ 6,820,000
10. ILL 105 - Superstructure Replacement	at William St Bridge over Lake Decatur	\$ 9,210,000
11. US 36 - Resurfacing and bridge repair	5.94 miles from I-72 to 0.2 Mi W of Harristown Blvd (including ramps) & US 51 from I-72 to 0.3 Mi S of Cantrell	\$ 6,780,000
12. US 36 - Resurfacing - 6.55 miles	6.55 miles from 70th St in Long Creek to 0.2 Mi W of ILL 32	\$ 4,560,000
13. Old US Business 51 - Resurfacing, Bridge joint replacement and bridge deck overlay	6.08 miles from Cleveland Ave in Decatur to US 51 1.9 Mil S of Elwin Rd	\$ 9,090,000
14. I-72 - Interstate Resurfacing and ramp repair	8.45 miles from 1.4 Mi W of US 51 W of Decatur to 0.5 Mi W of US 51 at Forsyth including ILL 121 interchange	\$ 22,830,000
15. US 51 - Resurfacing and ADA improvements	1.94 miles from 0.1 Mile N of Forsyth to I-72 in Decatur	\$ 4,620,000
16. US 36 - Bridge Replacement	bridge over Lake Shore Dr in Decatur	\$ 1,690,000
17. US 51 - Resurfacing	8.14 miles from Dewitt County Line to 0.1 Mi N of Forsyth Rd	\$ 14,770,000
18. ILL 48 - Resurfacing and Culvert Replacement	10.93 miles - 0.5 Mi N of US 51 to Christian Co Line -	\$ 9,111,000
19. ILL 105 - Resurfacing	6.05 miles - 0.3 Mile E of Bender Dr to Piatt Co Line	\$ 3,830,000
20. ILL 121 - Resurfacing and ADA improvements	2.72 miles - 0.6 Miles NW of I-72 to University Ave in Decatur	\$ 3,710,000
21. I-72 - Resurfacing and Ramp Repair	7.86 miles from Sangamon Co Line to 1.4 Mi W of US 51 W of Decatur	\$ 21,640,000
22. I-72 - Superstructure replacement	Bridge over ILL 121 and IC RR Northwest of Decatur	\$ 10,510,000
23. ILL 105 at 24th St - Intersection Improvement	At 24th Street	\$ 5,250,000
24. Main St - Resurfacing	2.26 miles from 0.1 Mi N of Eldorad St in Harristown to N Glasgow Rd	\$ 1,060,000
25. Church St - Resurfacing and ADA improvements	1.40 miles to 19th St in Decatur	\$ 2,360,000
26. US 36 - Bridge Replacement	Bridge at Long Creek Tributary W of Esther Ave	\$ 1,009,000
27. US 36 - Bridge Replacement	Bridge at Long Creek 0.4 Mi E of S 70th St	\$ 1,009,000
28. ILL 105 - Bridge Replacement	Bridge at Long Creek 2.5 Mi W of Piatt Co Line	\$ 970,000
29. ILL 121 - Bridge Replacement	Bridge at Creek 0.5 Mi W of Heman	\$ 1,040,000
30. ILL 121/US 36 - Bridge Rehabilitation	Bridge over Lake Decatur	\$ 12,300,000
31. ILL 121 - Patching / Resurfacing	1.17 miles from 0.1 miles south of Kile Street to Locust Street in Decatur	\$ 1,400,000

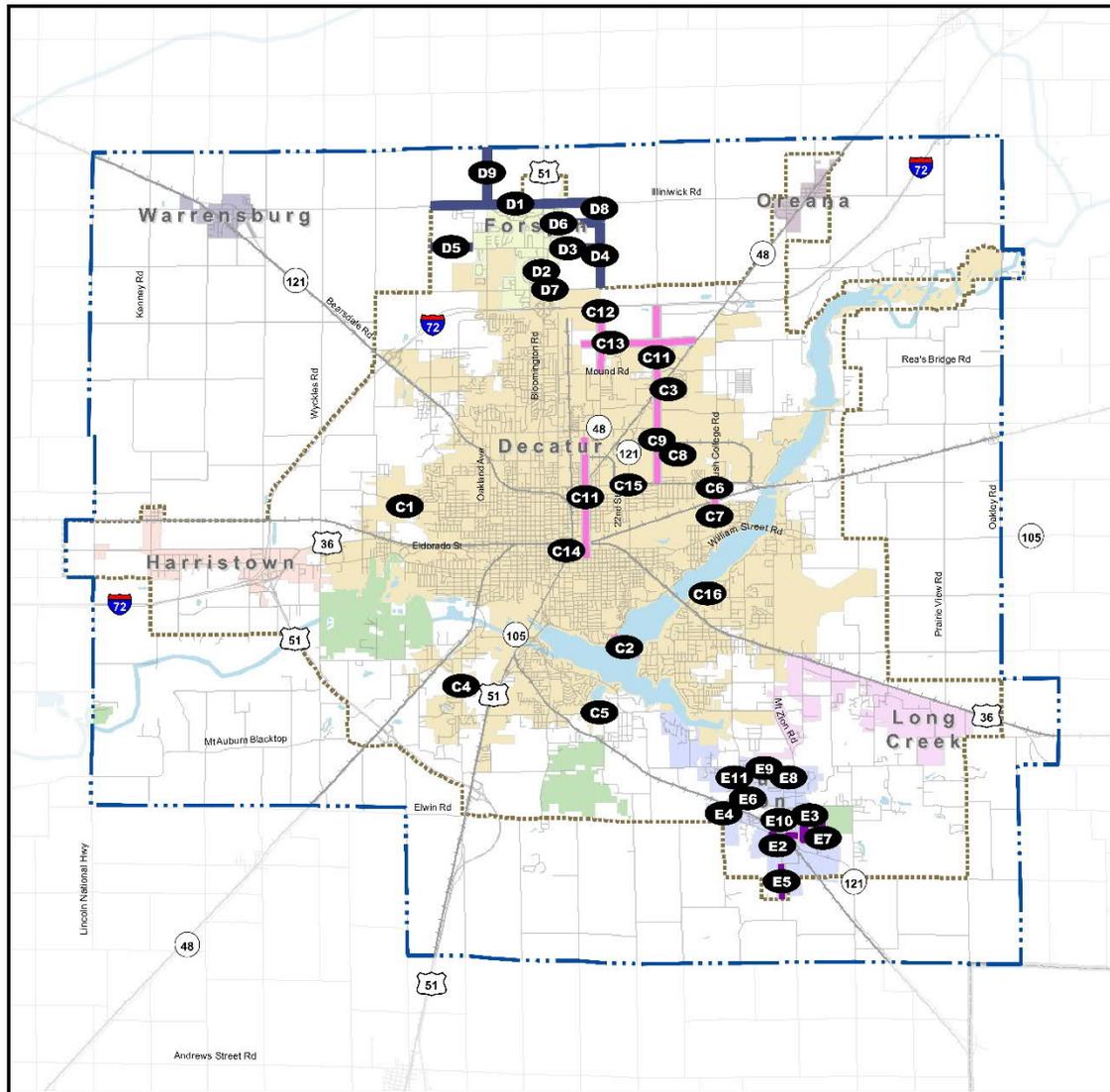
Source: IDOT.

Table 6-1: IDOT and Macon County Project List (continued)

Project / Description	Approximate Location	Estimated Cost
B1. CH-7 Reconstruction	Between Fitzgerald and US-36	\$ 3,000,000
B2. CH-63 / Country Club Road Resurfacing	2,900 feet of roadway	\$ 250,000
B3. CH-23 / Sangamon Road Curve Reconstruction	Design	\$ 500,000
B4. Reas Bridge Road Bridge Replacement	Bridge over Lake Decatur	\$ 13,650,000
B5. CH-23 /Sangamon Road Resurfacing	14,000 feet of roadway	\$ 1,200,000
B6. CH-20 / Reconstruction	Warrensburg, IL	\$ 5,000,000
B7. Beltway (Phase 1 - segment 1)	2 miles, Lake Decatur to ILL 48	\$ 41,644,000
B8. Beltway (Phase 1 - segment 2)	4 miles, ILL 105 to Lake Decatur	\$ 49,929,000
B9. Beltway (Phase 1 - segment 3)	4 miles, US 36 to ILL 105	\$ 45,000,000
B10. Beltway (Phase 2, including final engineering)	13 miles, US 51 to US 36	\$ 130,000,000
B11. Bridge/Structure Reconstruction or Replacement	Various locations (not shown on map)	\$ 15,000,000

Source: Macon County.

Figure 6-5: Decatur, Forsyth and Mt. Zion Projects



**Legend**

- 20-Year MPA Boundary
- DUATS Urbanized Boundary
- Railroad
- Decatur Projects
- Forsyth Projects
- Mount Zion Projects



2.5

Miles

Data Sources: Illinois DNR, IDOT, US Census, Macon Co, DUATS  
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Table 6-2: Decatur, Forsyth and Mt. Zion Project List

**City of Decatur Projects**

Project / Description	Approximate Location	Estimated Cost
C1. Center Street Bridge over Steven's Creek	0.9 miles west of Home Park Avenue (construction 2021)	\$ 1,000,000
C2. Lost Bridge Road Guardrail Replacement	Along causeway over Lake Decatur	\$ 120,000
C3. Meadowlark Bridge Improvements	0.3 miles south of Mound Road	\$ 350,000
C4. Taylor Road Bridge over Ward Branch	0.6 miles south of IL- 48 (construction 2020)	\$ 1,000,000
C5. Grove Road Bridge over Sand Creek	0.8 miles east of Franklin Street Road (2024)	\$ 300,000
C6. Brush College Road Improvement (Phase 1)	North of NS Underpass to Harrison Avenue	\$ 25,800,000
C7. Brush College Road Improvements (Phase 2)	William Street to North of NS Underpass	
C8. Parkway Drive Improvement	27th Street to ADM Intermodal Ramp	\$ 700,000
C9. 27th Street and CN Railroad Overpass	0.4 miles south of Pershing Road	\$ 50,000,000
C10. 27th Street Improvement	Faries Parkway to IL-48	\$ 2,000,000
C11. Jasper Street Improvement	Eldorado to Pershing Road	\$ 2,000,000
C12. Woodford Street Extension and Interchange	Mound Road to I-72	\$ 30,000,000
C13. Ash Avenue Extension	MLK Jr. Drive to IL-48	\$ 30,000,000
C14. Eldorado (US-36) and CN Railroad Overpass	0.15 miles east of MLK Jr. Drive	\$ 50,000,000
C15. Garfield Bridge	Replace Bridge over 22nd Street	\$ 920,000
C16. Country Club Rd Bridge over Lake Decatur	Beam repairs	\$ 10,000,000

**Forsyth Projects**

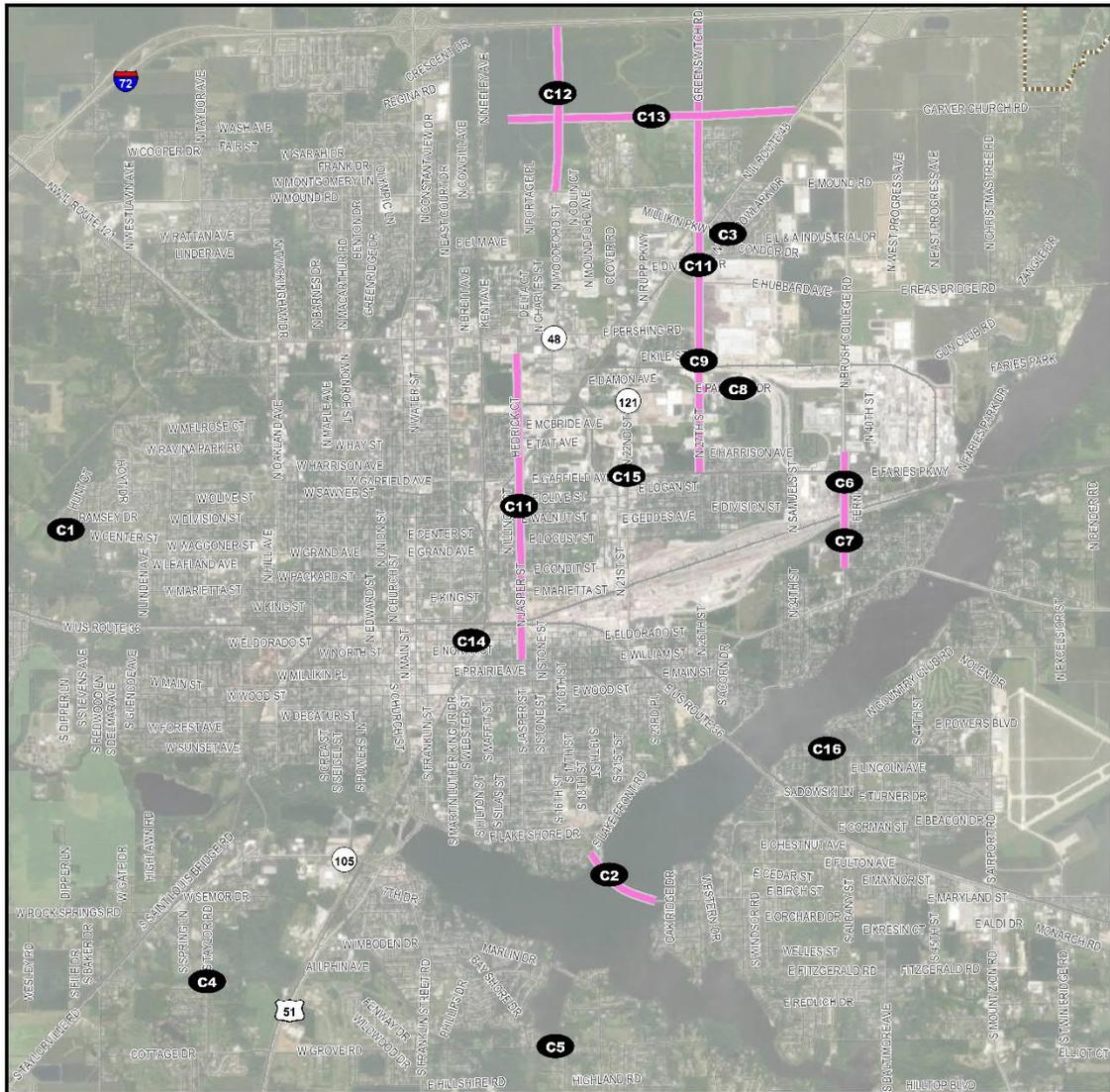
Project / Description	Approximate Location	Estimated Cost
D1. Illiniwick Road (CH-20) Reconstruction	Oakland Ave to Sawyer Rd (joint improvement with MCHD)	\$ 11,165,000
D2. Barnett Avenue and US 51 Intersection Improvement	Reconstruction with safety improvements	\$ 850,000
D3. E. Weaver Road Extension	Elwood Street to Sawyer Road	\$ 3,300,000
D4. Sawyer Road Reconstruction (Phase 2)	E. Cox Street to E. Hickory Point Road	\$ 4,500,000
D5. W. Weaver Road Extension	Hundley Road to Janvrin Road	\$ 3,400,000
D6. East Cox Street Extension (Phase 3)	Smith Street to Sawyer Road	\$ 3,900,000
D7. Koester Drive and E. Hickory Point Road Intersection study	Jointly funded project between Forsyth and Decatur	\$ 500,000
D8. Sawyer Road Improvements	CH-20 South Cox Street Extension	\$ 2,300,000
D9. Oakland Avenue Extension	CH-20 north to Shallenbarger	\$ 4,500,000

**Mt. Zion Projects**

Project / Description	Approximate Location / Notes	Estimated Cost
E1. Broadway Street Reconstruction	Committed - anticipated bid letting January 2020	\$ 1,465,000
E2. Main Street Bridge Rehabilitation	-	\$ 525,000
E3. Lewis Park Drive Extension	-	\$ 403,000
E4. Crestview Addition Widening	-	\$ 425,000
E5. Henderson Street Reconstruction (Phase 3)	-	\$ 497,000
E6. Florian Avenue Resurface	Mill and overlay	\$ 210,000
E7. Park Addition Reclaim	Reclaim and widen	\$ 360,000
E8. Dogwood Drive Resurface	Mill and overlay	\$ 250,000
E9. Wildwood East Courts	Mill and overlay	\$ 350,000
E10. Pine Court Resurface	Mill and overlay	\$ 68,300
E11. Powers Court Resurface	Mill and overlay	\$ 101,200

Source: Decatur, Forsyth and Mt. Zion.

Figure 6-6: Decatur Projects



**Legend**

-  20-Year MPA Boundary
-  Decatur Projects
-  DUATS Urbanized Boundary
-  Railroad

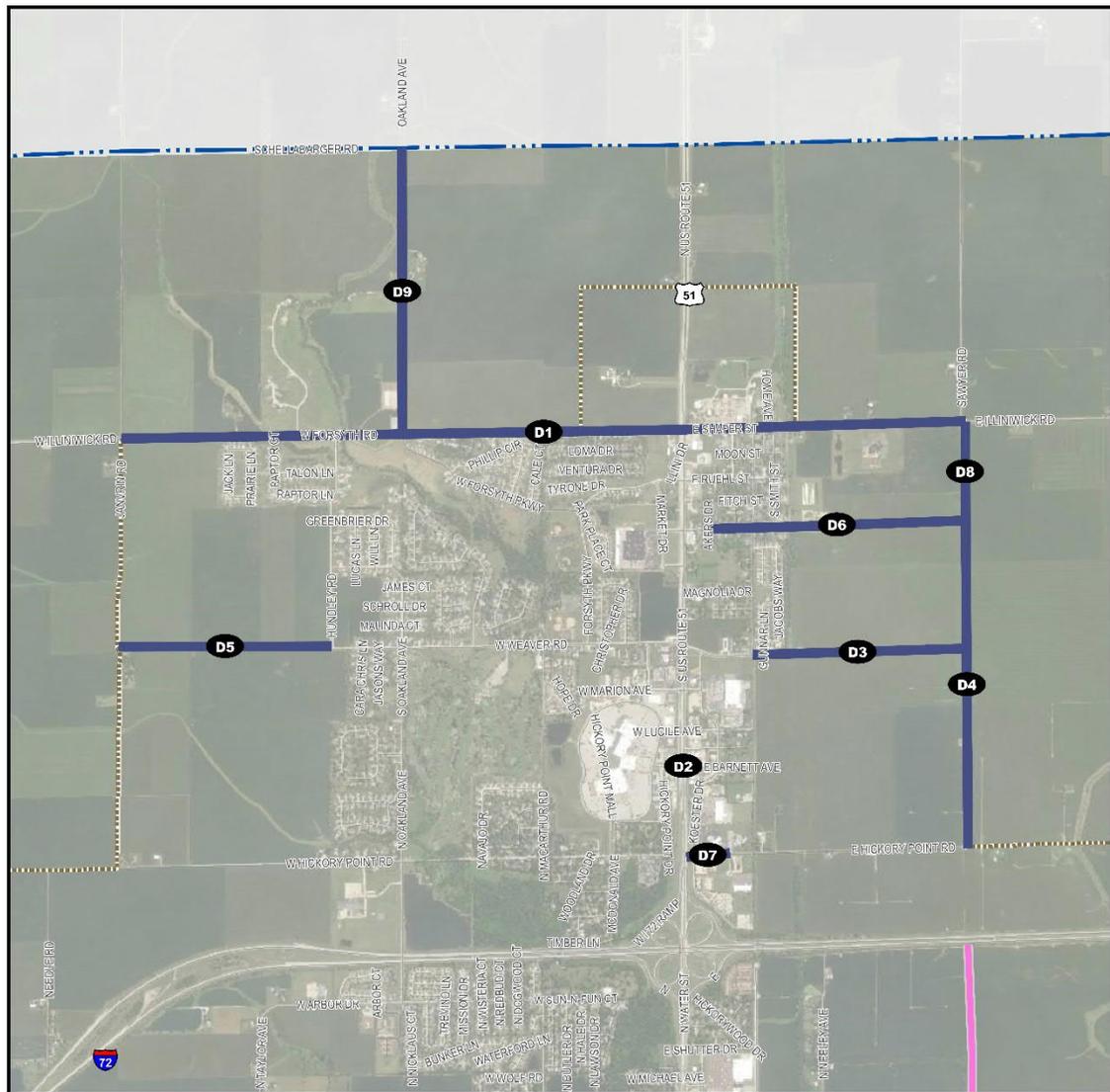


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Miles

Data Sources: Illinois DNR, IDOT, US Census, Macon Co, DUATS  
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Figure 6-7: Forsyth Projects



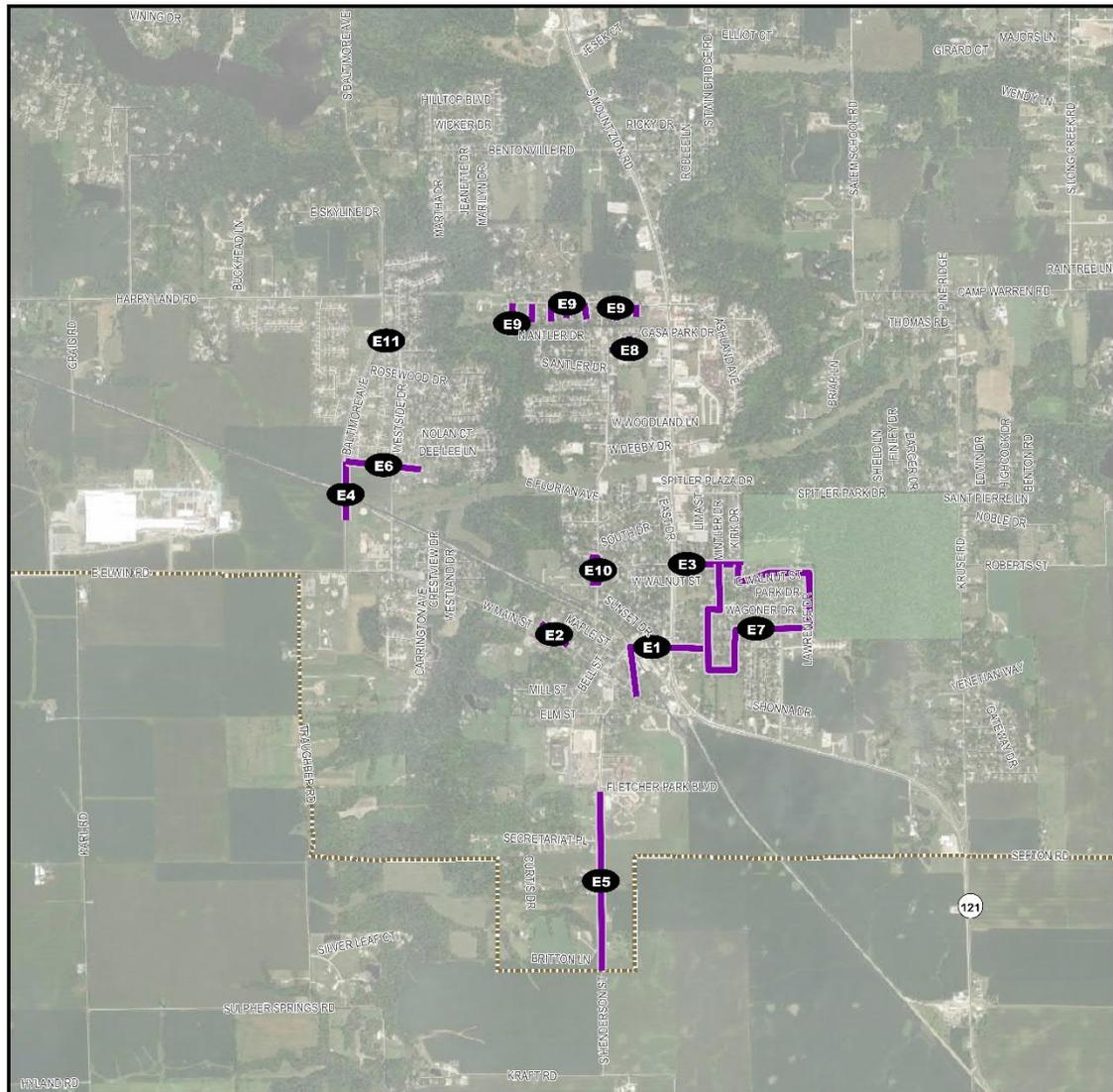
- Legend**
- 20-Year MPA Boundary
  - Decatur Projects
  - DUATS Urbanized Boundary
  - Forsyth Projects
  - Railroad



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Miles

Data Sources: Illinois DNR, IDOT, US Census, Macon Co, DUATS  
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Figure 6-8: Mt. Zion Projects



- Legend**
- 20-Year MPA Boundary
  - Mount Zion Projects
  - DUATS Urbanized Boundary
  - Railroad



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Miles

Data Sources: Illinois DNR, IDOT, US Census, Macon Co, DUATS  
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## FISCALLY CONSTRAINED ROADWAY/FREIGHT PLAN

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Federal planning legislation require LRTPs to be fiscally constrained. As such, the cost feasible analysis compares anticipated transportation revenues available through the horizon year 2045 to high-level project cost estimates, inflated to an anticipated year of expenditure. This analysis helps identify projects that are most likely to be funded during the life of the LRTP, and more importantly helps guide regional transportation and infrastructure investments.

The transportation needs and associated project costs are far greater than available transportation revenues—a common challenge facing most public agencies. Projects that are not fiscally constrained are included on the LRTP illustrative list of projects. Identifying these projects is an important aspect of the LRTP as the plan is a living document intended to provide guidance regarding future transportation investments. Furthermore, the LRTP can be amended, between regular LRTP updates, to add projects to the fiscally constrained list if priorities change and/or additional funding becomes available.

### Federal Regulations

FAST Act planning regulations require that MPOs consider the financial implications of their planning efforts as part of the LRTP. Specific provisions in the law regarding the financial plan state the following requirements:<sup>9</sup>

- ▶ Development of a financial plan that demonstrates how the adopted transportation plan can be implemented;
- ▶ Development of funding estimates that will be available to support LRTP implementation, including financial resources from public and private sources;
- ▶ State recommendations on pursuing additional financing strategies to fund projects and programs included in the LRTP; and
- ▶ Account for all projects and strategies for which federal, state, local, or private funds would be used to finance, and use an inflation rate to reflect multi-year costs and revenues.

Simply stated, the LRTP should be fiscally constrained with reasonable funding sources identified for the proposed transportation projects. Projects with no known funding/revenue source are still included in the LRTP but will appear only as an illustrative project. The following sections summarize the DUATS 2045 LRTP fiscal constraint analysis.

### Available Revenue

Transportation revenues come from several different sources including state and local funding. Transportation grants also play an important role in funding transportation projects, including large scale projects such as grade separations. Funding sources are described in more detail later in this section.

Projected roadway revenues available to the region are based on historical funding levels identified for the past five-years as reported by DUATS member agencies. In particular, transportation expenditures from IDOT, Macon County, and Decatur make up the majority of transportation expenditures for regionally significant transportation improvements. Based upon recent five-year averages for IDOT, Macon County, and the City of Decatur, it is estimated that the

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<sup>9</sup> United States Government Printing Office (USGPO). 23 CFR 450.322(f)(10) – Development and Content of the Long Range Transportation Plan (LRTP). <http://www.gpo.gov/fdsys/pkg/CFR-2011-title23-vol1/pdf/CFR-2011-title23-vol1-sec450-322.pdf> (2014)

## Recommended Plan

approximately \$852 million would be available through the year 2045 for maintenance and construction. Local funding for projects in Mt. Zion and Forsyth is also listed but is not generally a significant funding source for regional transportation projects identified in the LRTP.

The \$852 million is likely a conservative estimate, especially given the recent Rebuild Illinois capital program. Rebuild Illinois is a \$45 billion investment that will substantially help fund various projects throughout the state. Of this total, \$33.2 bill is dedicated to repairing an aging transportation system of roads and bridges throughout the state. In addition, local governments will receive \$4 billion in transportation funds to meet specific needs, the first increase in 20 years.

For the purpose of the LRTP fiscal constraint, the analysis does not assume any significant increase over recent levels. Future year funding is projected on an annual basis and includes a 1 percent inflationary factor per year. Based on historic funding sources, revenues can vary year to year and as such this approach reflects a conservative estimate.

### Operations and Maintenance

A significant portion of available revenues will be used to fund on-going operating and maintenance (O&M) costs of existing transportation infrastructure. The LRTP should consider cost estimates and revenue sources that are reasonably expected to be available to adequately carry out typical maintenance activities. In addition, the plan should also take into account more intensive maintenance including pavement repaving and bridge repairs which are identified under capital improvements.

DUATS member agencies were asked to provide a summary of typical maintenance expenses for 2009 to 2018. Table 6-3 to Table 6-5 displays historical maintenance for the DUATS member agencies.

Table 6-3: Historical IDOT Maintenance

Activity	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Pavement Rehabilitation/Replacement	\$ 56,331	\$ 38,318	\$ 40,018	\$ 89,934	\$ 88,298	\$ 80,493	\$ 69,907	\$ 48,068	\$ 68,103	\$ 76,712
Bridge Rehabilitation/Replacement	\$ 1,400	\$ 7,153	\$ 4,085	\$ 1,378	\$ 1,527	\$ -	\$ 1,200	\$ -	\$ -	\$ -
Shoulders/Curb and Gutter	\$ 34,833	\$ 24,295	\$ 19,380	\$ 7,194	\$ 35,965	\$ 5,876	\$ 4,745	\$ 4,628	\$ 1,496	\$ -
Drainage Work	\$ 9,314	\$ 1,666	\$ 3,341	\$ 402	\$ 8,026	\$ 7,262	\$ 3,780	\$ 1,868	\$ 3,095	\$ 5,597
Snow & Ice Removal	\$ 302,579	\$ 319,171	\$ 319,377	\$ 157,805	\$ 193,870	\$ 417,969	\$ 308,161	\$ 154,193	\$ 206,158	\$ 374,171
Other Operation and Maintenance Expenses *	\$ -	\$ -	\$ 16,641	\$ 9,004	\$ -	\$ 17,187	\$ 11,480	\$ 18,421	\$ 20,028	\$ 13,637
<b>Total</b>	<b>\$ 404,457</b>	<b>\$ 390,603</b>	<b>\$ 402,842</b>	<b>\$ 265,717</b>	<b>\$ 327,686</b>	<b>\$ 528,787</b>	<b>\$ 399,273</b>	<b>\$ 227,178</b>	<b>\$ 298,880</b>	<b>\$ 470,117</b>
				5-Year Rolling Average	\$ 358,261	\$ 383,127	\$ 384,861	\$ 349,728	\$ 356,361	\$ 384,847

Source: IDOT.

Table 6-4: Historical Macon County Maintenance

Activity	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Pavement Rehabilitation/Replacement	\$ 757,864	\$ 761,471	\$ 760,645	\$ 834,803	\$ 589,715	\$ 921,074	\$ 937,949	\$ 690,028	\$ 784,984	\$ 821,899
Bridge Rehabilitation/Replacement	\$ 252,625	\$ 548,368	\$ 91,786	\$ 69,120	\$ 669,740	\$ 65,212	\$ 41,324	\$ 49,190	\$ 45,654	\$ 59,078
Shoulders/Curb and Gutter	\$ 60,800	\$ 92,564	\$ 92,629	\$ 81,803	\$ 107,443	\$ 73,077	\$ 72,603	\$ 59,164	\$ 73,230	\$ 74,053
Drainage Work	\$ 27,064	\$ 24,502	\$ 6,982	\$ 13,500	\$ 19,578	\$ 27,033	\$ 27,258	\$ 25,356	\$ 31,384	\$ 27,622
Snow & Ice Removal	\$ 97,408	\$ 81,722	\$ 94,744	\$ 57,868	\$ 135,974	\$ 61,000	\$ 203,500	\$ 130,123	\$ 96,789	\$ 120,000
Other Operation and Maintenance Expenses *	\$ 25,188	\$ 89,118	\$ 178,327	\$ 48,191	\$ 77,145	\$ 193,454	\$ 161,827	\$ 98,767	\$ 99,537	\$ 128,844
<b>Total</b>	<b>\$ 1,220,949</b>	<b>\$ 1,597,745</b>	<b>\$ 1,225,113</b>	<b>\$ 1,105,285</b>	<b>\$ 1,599,595</b>	<b>\$ 1,340,850</b>	<b>\$ 1,444,461</b>	<b>\$ 1,052,628</b>	<b>\$ 1,131,578</b>	<b>\$ 1,231,496</b>
				5-Year Rolling Average	\$ 1,349,737	\$ 1,373,718	\$ 1,343,061	\$ 1,308,564	\$ 1,313,822	\$ 1,240,203

Source: Macon County Highway Department.

Table 6-5: Historical Decatur Maintenance

Activity	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Pavement Rehabilitation/Replacement	\$ 2,435,325	\$ 3,862,787	\$ 1,101,025	\$ 2,203,947	\$ 1,993,735	\$ 1,478,413	\$ 2,012,970	\$ 2,650,790	\$ 5,484,158	\$ 5,431,203
Bridge Rehabilitation/Replacement	\$ 56,733	\$ 231,752	\$ 205,916	\$ 317,830	\$ 372,233	\$ 355,596	\$ 1,072,763	\$ 229,265	\$ 198,167	\$ 446,909
Shoulders/Curb and Gutter	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Drainage Work	\$ 116,135	\$ 395,430	\$ 227,606	\$ 122,538	\$ 267,265	\$ -	\$ 41,324	\$ 477,185	\$ 419,112	\$ 238,282
Other Construction	\$ 410,761	\$ 176,619	\$ 238,825	\$ 4,100,464	\$ 5,706,405	\$ 56,755	\$ 245,043	\$ 98,938	\$ 406,301	\$ 129,479
Snow & Ice Removal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total</b>	<b>\$ 3,018,954</b>	<b>\$ 4,666,588</b>	<b>\$ 1,773,372</b>	<b>\$ 6,744,779</b>	<b>\$ 8,339,638</b>	<b>\$ 1,890,764</b>	<b>\$ 3,372,100</b>	<b>\$ 3,456,177</b>	<b>\$ 6,507,739</b>	<b>\$ 6,245,873</b>
				5-Year Rolling Average	\$ 4,908,666	\$ 4,683,028	\$ 4,424,131	\$ 4,760,692	\$ 4,713,284	\$ 4,294,530

Source: City of Decatur.

## Recommended Plan

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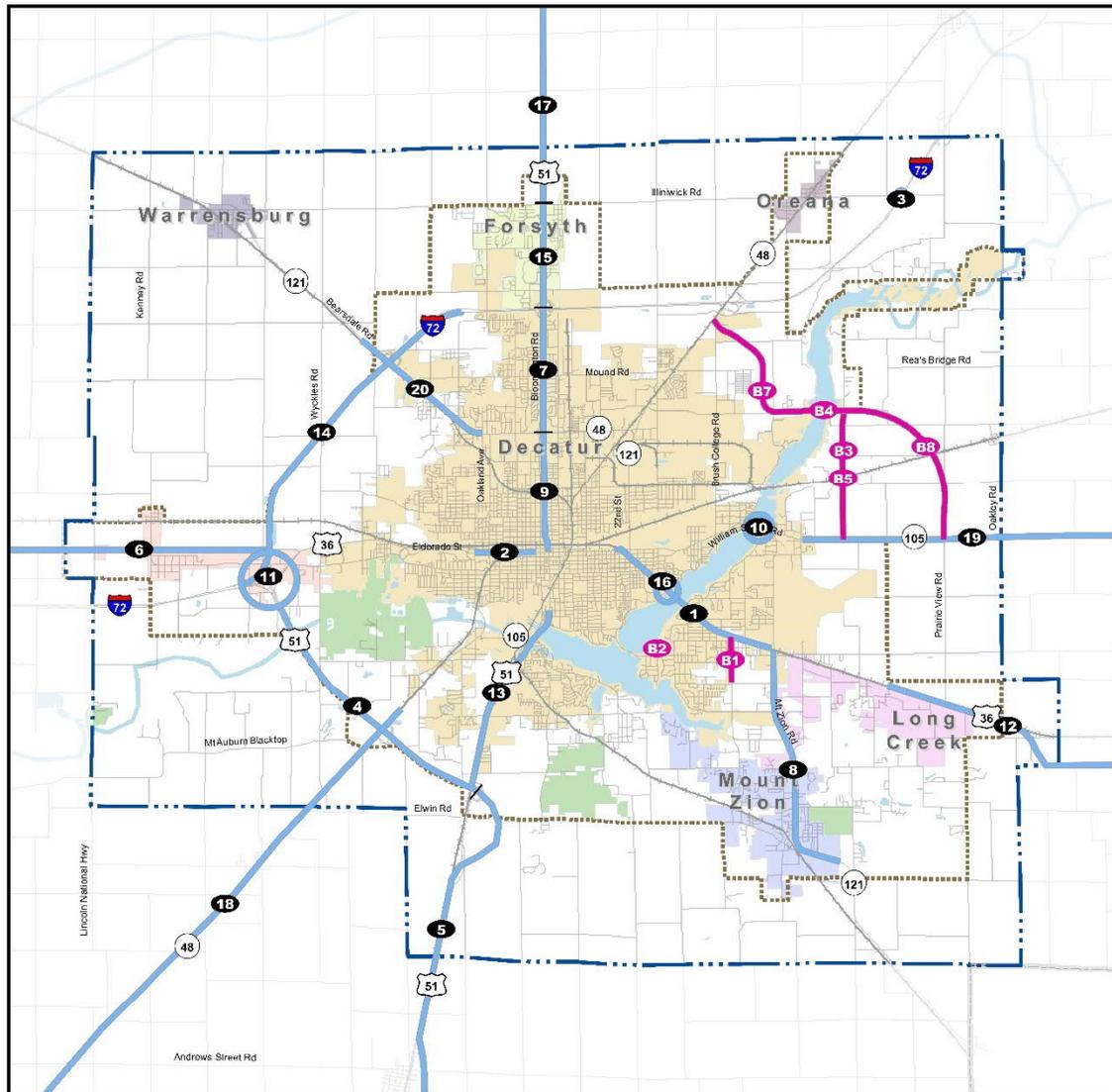
These costs were provided by each agency for the time period between 2014 and 2018. Applying a 3 percent inflation rate, the routine maintenance expenses are expected to total nearly \$250 million for these three agencies which make up the majority of the operations and maintenance expenses within the MPA. Subtracting this from the total of \$852 million leaves approximately \$600 million for capital improvements.

### Capital Improvements (Fiscally Constrained Plan)

The fiscal constraint requirement is intended to ensure that LRTPs reflect realistic assumptions about future revenues. Compliance with the requirement entails a comparison of revenues and estimated project costs. The primary question that must be answered is "Will the projected revenues (federal, state, local, and private) through the year 2045 cover the anticipated project costs?"

Figure 6-9 displays the fiscally constrained projects for the DUATS 2045 LRTP, while Table 6-6 summarizes the projects. Additional detail is provided in the appendix.

Figure 6-9: Fiscally Constrained Projects



- Legend**
- 20-Year MPA Boundary
  - DUATS Urbanized Boundary
  - Railroad
  - Macon County Project
  - IDOT Project



2.5

Miles

Data Sources: Illinois DNR, IDOT, US Census, Macon Co, DUATS  
 File: \\uschg1f5001\prod\Projects\60604788\1900\_CAD\_GIS\920\_GIS\MXDs\FCPProjects\_IDOT.mxd

Table 6-6: Fiscally Constrained Project List

Project / Description	Approximate Location	Estimated Cost
1. US 36/ILL 121 - Resurfacing, ADA improvements and traffic signal modernization.	3.79 miles from 19th St to 0.4 Mi E of Airport Rd in Decatur	\$ 5,730,000
2. US 36 - Resurfacing, ADA improvements, structure repair and traffic signal modernization	1.22 miles from ILL 48 to Church St in Decatur & W. Eldorado St from ILL 48 to US36	\$ 4,350,000
3. I-72 - Bridge Joint replacement and repairs, deck repairs, and bridge deck overlay	bridge at CH 20 1 mile East of Oreana	\$ 600,000
4. US 51 - Microsurfacing	4.64 miles from 0.8 Mi S of US 36 to 0.3 Mi E of US 51 Busn SW of Decatur	\$ 650,000
5. US 51 - Resurfacing and Bridge joint replacement	9.38 miles from US 51 Bsn SW of Decatur to 0.5 Mi N of Shelby Co Line	\$ 14,690,000
6. Old US 36 - Resurfacing	9.67 miles from Sangamon County Line to US 36 in Decatur	\$ 7,790,000
7. Old US Business 51 - Resurfacing, ADA improvements and bridge joint repair	2.68 miles from I-72 to ILL 121 in Decatur	\$ 4,550,000
8. ILL 121 - Resurfacing, ADA improvements	4.15 miles from US 36 to South Corporate Limits of Mt Zion	\$ 7,140,000
9. Old US 51 Business - Resurfacing, ADA improvements	4.27 miles from ILL 121 to US 36 in Decatur	\$ 6,820,000
10. ILL 105 - Superstructure Replacement	at William St Bridge over Lake Decatur	\$ 9,210,000
11. US 36 - Resurfacing and bridge repair	5.94 miles from I-72 to 0.2 Mi W of Harristown Blvd (including ramps) & US 51 from I-72 to 0.3 Mi S of Cantrell	\$ 6,780,000
12. US 36 - Resurfacing - 6.55 miles	6.55 miles from 70th St in Long Creek to 0.2 Mi W of ILL 32	\$ 4,560,000
13. Old US Business 51 - Resurfacing, Bridge joint replacement and bridge deck overlay	6.08 miles from Cleveland Ave in Decatur to US 51 1.9 Mil S of Elwin Rd	\$ 9,090,000
14. I-72 - Interstate Resurfacing and ramp repair	8.45 miles from 1.4 Mi W of US 51 W of Decatur to 0.5 Mi W of US 51 at Forsyth including ILL 121 interchange	\$ 22,830,000
15. US 51 - Resurfacing and ADA improvements	1.94 miles from 0.1 Mile N of Forsyth to I-72 in Decatur	\$ 4,620,000
16. US 36 - Bridge Replacement	bridge over Lake Shore Dr in Decatur	\$ 1,690,000
17. US 51 - Resurfacing	8.14 miles from Dewitt County Line to 0.1 Mi N of Forsyth Rd	\$ 14,770,000
18. ILL 48 - Resurfacing and Culvert Replacement	10.93 miles - 0.5 Mi N of US 51 to Christian Co Line -	\$ 9,111,000
19. ILL 105 - Resurfacing	6.05 miles - 0.3 Mile E of Bender Dr to Piatt Co Line	\$ 3,830,000
20. ILL 121 - Resurfacing and ADA improvements	2.72 miles - 0.6 Miles NW of I-72 to University Ave in Decatur	\$ 3,710,000
B1. CH-7 Reconstruction	Between Fitzgerald and US-36	\$ 3,000,000
B2. CH-63 / Country Club Road Resurfacing	2,900 feet of roadway	\$ 250,000
B3. CH-23 / Sangamon Road Curve Reconstruction	Design	\$ 500,000
B4. Reas Bridge Road Bridge Replacement	Bridge over Lake Decatur	\$ 13,650,000
B5. CH-23 /Sangamon Road Resurfacing	14,000 feet of roadway	\$ 1,200,000
B7. Beltway (Phase 1 - segment 1)	2 miles, Lake Decatur to ILL 48	\$ 41,644,000
B8. Beltway (Phase 1 - segment 2)	4 miles, ILL 105 to Lake Decatur	\$ 49,929,000

## Supporting Roadway/Freight Policies and Strategies

The following roadway/freight policies and strategies are identified as ways to support the future planning and implementation of improvements to strengthen the DUATS regional transportation system. Ultimately, these policies and strategies will support the DUATS 2045 LRTP goals and objectives.

- ▶ **Midwest Inland Port Transportation Plan** | Conduct an industrial transportation plan to evaluate opportunities to enhance truck and rail access in the vicinity of the MIP.
- ▶ **System Management** | Transportation System Management (TSM) and Intelligent Transportation Systems (ITS) strategies offer cost-effective solutions to transportation deficiencies. TSM projects such as intersection improvements (e.g., adding turn lanes, geometric improvements) should be sufficient to alleviate capacity issues within the DUATS MPA. ITS applications (e.g., traffic signal interconnects, signal preemption) can be used to improve traffic flow and provide priority to emergency vehicles. A regional ITS architecture was recently developed for Decatur as part of our Statewide ITS Plan. At the time of the DUATS 2045 LRTP adoption, the Statewide ITS documents were not yet available online. When available, the plan should include findings on the current use of ITS in Illinois, and potential applications in the Decatur region. It will also recommend approaches to enhance the integration and deployment of ITS in the future. The Decatur regional ITS will be available at: [idot.illinois.gov/transportation-system/transportationmanagement/planning/intelligent-transportation](http://idot.illinois.gov/transportation-system/transportationmanagement/planning/intelligent-transportation)
- ▶ **Traffic Calming** | As appropriate, implement traffic calming techniques to discourage drivers (and especially trucks) from using local residential streets to avoid arterial roadways and other intended through routes. This is especially relevant for truck traffic that may be using local roadways to avoid traveling through downtown, causing negative externalities for local residents. Traffic calming measures also support the goal of maintaining a high quality of life within the MPA.
- ▶ **Access Management** | Access management has been shown to have significant benefits regarding the preservation of roadway capacity while improving traffic safety. Access management could potentially be considered along corridors that have a high number of crashes, have numerous and closely spaced access points, or feature confusing intersection geometrics.
- ▶ **Regional Land Use Design Standards** | Housing density should play a key role in determining roadway spacing. In general, areas featuring higher numbers of dwelling units per acre should warrant more closely spaced streets. Shorter spacing requirements would provide a greater number of travel paths, reduce travel speed on residential streets, and promote pedestrian travel and the use of public transportation services offered by DPTS. DUATS should collaborate with partnering municipalities and other community stakeholders to strengthen land use typologies identified in the comprehensive plan that would facilitate this and similar types of urban design standards.
- ▶ **Context Sensitive Solutions (CSS)** | Transportation improvements should be sensitive to the existing and planned environment. Steps should be taken to preserve features such as landscaping, scenic views, informal spaces, and all other applicable environmental considerations. Planning for improvements should involve CSS and plans should include aesthetic characteristics to make the improvements and corridor visually pleasing.
- ▶ **Complete Streets** | The design of all roadway improvements should consider and/or plan for alternate facilities that serve the needs of pedestrians, bicyclists, and other non-motorized

users.

- ▶ **Public-Private Partnerships** | Planning for future year rail operations has historically been conducted primarily by the rail companies. However, there is a growing consensus and willingness to cooperate on future growth strategies among both the public and private sectors. One way in which specific issues could be addressed in a collective manner involves the initiation of an open dialogue with major parties and stakeholders, with the intent of increasing cooperation and communication. Specific areas of where resources could be pooled include:
  - Sharing infrastructure and constructing improvements;
  - Monitoring and improving conditions at at-grade crossings;
  - Consolidating freight operations and improved logistical planning;
  - Intermodal opportunities;
  - Passenger rail service; and,
  - Highway/rail corridor improvements.
  
- ▶ **Grade-Separated Facilities** | Grade-separated facilities could greatly reduce travel delays for the various transportation modes including private vehicles, transit buses, and ground freight movement. Other grade-separation issues include the following:
  - Monitor at-grade rail crossings to provide a high level of safety and mobility for motorists, bicyclists and pedestrians;
  - Identify high priority crossings that could be considered for improved traffic control devices and potential grade separated facilities (several locations have been identified for possible grade separation, including Eldorado Street, between Front and Hilton, and 22nd Street, among others.);
  - Identify transit routes and at-grade crossings to determine the potential travel delays resulting from at-grade rail crossings;
  - Continue routine maintenance and upkeep of the existing rail infrastructure; and,
  - Create an inter-jurisdictional committee of local governments, railroads, and other stakeholders to explore the potential for intermodal connections, increases in freight efficiencies, possible trans-load operations, at-grade crossing closures, and other improvements to increase the effectiveness of rail service in the region.
  
- ▶ **New Technology** | New technology in rail operations should be identified and considered for possible application within the MPA. Applications could include more common items (such as installing new gates and flashing lights to improve safety at grade crossing locations) or more recent innovative technologies, like real-time traffic condition updates and responsive signalization to improve logistical efficiencies for truck traffic.
  
- ▶ **Intermodal Opportunities** | The MPA is steadily becoming a primary nexus for the movement of freight and consumer goods in the region and the State of Illinois. The existing rail service, close access to the Decatur Airport, and nearby industrial park made the MPA an ideal location for an intermodal facility constructed by ADM in 2013. This investment has bolstered the reach of the Midwest Inland Port, led by the Economic Development Corporation of Decatur and Macon County. The presence of the Foreign Trade Zone and Customs at the Decatur Airport is also a significant resource to support intermodal opportunities. Construction of the Beltway and the widening of US-51 (outside the MPA) would further support potential intermodal connections, as would a rail spur accessing the Airport industrial park.
  
- ▶ **Decatur Area Joint Operating Committee** | Previous DUATS LRTPs raised the possibility of the region forming of a Decatur Area Joint Operating Committee. This committee would include representatives of the Class 1 railroads, major industries, and area officials who

would meet a few times a year to discuss rail issues and possible solutions. Similar committees have been successful in other locations, including the Chicago metro area.

The committee might consider developing a railroad operations management plan that would look to increase the efficiency of the current system by adjusting schedules (i.e., postponing rail activity to off-peak periods) and encouraging operational agreements allowing the Class 1 railroads to share each other's trackage. While this sounds good in theory, the fact is that market demands typically dictate when products are needed and when rail maneuvers occur, thus making schedule adjustments difficult. Operational agreements can also be difficult as the Class 1 railroads are generally not inclined to share each other's trackage unless there are clear benefits to both parties. However, the formation of a joint operating committee is likely the only way that cost-minimizing improvements such as schedule changes and operational agreements could move forward to address the DUATS rail issues. As such, this joint committee remains as a potential strategy in the DUATS 2045 LRTP.

## PUBLIC TRANSPORTATION PRIORITIES

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The Decatur Public Transit System (DPTS) provides a valuable mobility service within the region. While ridership has experienced a decline in the past five years, the DPTS still provided over 1.1 million rides in 2018. In some cases, transit is the only travel option available to area residents to access jobs, schools, medical appointments, and other daily trip purposes. In fact, DPTS estimates that 87 percent of all customers do not have a driver license or access to a vehicle. As such, transit is and will remain an important mobility option for area residents. The 2045 LRTP outlines steps to enhance public transportation within the region.

The 2045 DUATS LRTP reviewed transit operations at a very high level. From a regional standpoint, fixed-route service coverage for the DUATS MPA is good. DPTS operates in Decatur, Forsyth, and Mt. Zion, and serves major employers in the region. From a short-term perspective, service coverage seems adequate, and long-term future year growth projections at this time do not warrant major route changes.

One concern for DPTS has been an aging fleet of vehicles; however, the current TIP includes plans to replace the vehicles over the next few years which will address this issue. While upgrading the fleet is a positive, replacing the fleet in a short time period means the next replacement of vehicles (targeted at 12 years useful life) will also occur around the same time. Over the next decade, it would be beneficial for the DPTS to develop a replacement schedule that spaces out fleet replacement on a more balanced, regular schedule.

Perhaps the greatest challenge facing DPTS operations is the frequent and sometimes lengthy at-grade rail crossing delays within the region. These delays are for the most part beyond the control of DPTS (in some cases, if identified ahead of time, bus drivers are able to divert to an alternate route to avoid the delay). Regardless, the potential for rail crossing delays adversely impacts transit operations and riders. The DATES report documented the negative impacts on transit riders, including instances where riders missed transfers due to rail crossing delays. While difficult to quantify, these train related delays could be contributing to the recent ridership decline. If riders experience frequent delays, miss transfers, or are late to work or school, it may cause some individuals to look for alternative transportation options. One of the keys to operating successful transit service is reliability, meaning riders can count on buses operating on-schedule and arriving at their destination on-time.

DPTS plans to conduct a Comprehensive Operational Analysis (COA) in 2020 that will examine current and future short-term transit services. One objective of the COA will be to identify opportunities to better deliver transit and mobility services within the region. The way people think of, and use, public transportation is rapidly changing and rethinking the delivery of public transportation within the DUATS region will be an important step to enhance mobility services. The 2045 LRTP includes the following issues for consideration in the upcoming COA.

- ▶ **Later/Evening Service** | Adding service to accommodate 2<sup>nd</sup> and 3<sup>rd</sup> shift workers is a priority improvement. Adding later service is a way to connect people to jobs which currently fall outside regular service hours. Based on conversation with DPTS staff, there has been interest among City Council members in extending evening service hours. Extending evening service hours is also important to support local businesses that sometimes find it challenging to fill 2<sup>nd</sup> and 3<sup>rd</sup> shift openings due to individuals being unable to travel to/from work. In addition to benefiting workers and businesses, later evening service also provides people a safety net in case work runs late or they wish to make non-work trips

such as running errands or attending evening social events that might end outside current service hours. One aspect of evening service that should be explored as part of the COA is service cost. A few years ago, DPTS offered extended evening service but the cost (fare) of the service was too high, rendering it unviable. Keeping evening service fares at the same rate, or near the same rate, as a regular transit fares should be evaluated.

- ▶ **Sunday Service** | Sunday service has been, and continues to be, a frequently requested improvement. One of the challenges with providing Sunday service is defining the purpose of the service. Some feel that Sunday service is primarily a way to get to/from church services. However, some communities across the county are seeing an increased demand for Sunday service to get people to/from jobs. As part of the COA it will be important to analyze the need, purpose, and feasibility for adding for Sunday service.
- ▶ **Aging Population** | Public transportation is a vital component in providing mobility to older adults, people with disabilities, and disadvantaged populations in the Decatur urbanized area. Public transportation can provide the basic mobility needed to access employment opportunities, health care facilities, daily shopping activities, and other basic community services. Demographics documented earlier in this LRTP suggest the region is currently above the national average in terms of the number of individuals nearing retirement age. While not necessarily a major concern at this time, in ten to twenty years, an aging population may want—or need—to use transit services more often. The nationwide trend over the past decade has been for older adults to stay in their homes—or to “age in place.” In many cases their homes are located on the urban fringe or beyond current transit service areas, making the delivery of transit service, especially fixed-route service, difficult or impossible. This is an issue that should be monitored in future as new services or solutions may be required to meet future year mobility needs.
- ▶ **Future Growth Areas** | Future population and employment projections through the year 2045 have been discussed in this LRTP. Generally speaking, most growth within the region has been occurring in Forsyth and Mt. Zion. These areas are likely to see continued growth over the next few decades; however, the projected growth at this time would not warrant major service expansion plans. DPTS should continue to monitor future year growth and mobility needs, but the short-term focus should be on identifying opportunities to enhance existing operations.
- ▶ **First and Last Mile Connections** | All transit trips begin and end with individuals accessing the bus at a transit stop or downtown transit center. The majority of individuals walk to transit facilities, but some access facilities by wheelchair or bike, and some may be dropped off. Regardless, first and last mile connections are part of every transit trip and can play a significant role in the usage and perceived convenience of transit. If sidewalks or ADA facilities are not available, individuals are less likely to use transit. In addition, a number of stops near local industries require individuals to walk a significant distance to access the worksite(s). Finding opportunities to enhance first and last mile connections should be a priority for DUATS member agencies. In particular, sidewalk and/or trail improvements should be incorporated into roadway improvements to help strengthen transit operations, in addition to supporting non-motorized travel. Finally, the addition of bike racks on new buses will provide transit riders an additional mobility option to access transit services.
- ▶ **Service Efficiencies** | DPTS is constantly monitoring operations to identify potential opportunities to better deliver service. The planned COA will be a valuable resource that can examine service and mobility options in greater detail. If possible, boarding and alighting data should be reviewed to identify frequently used bus stops to help prioritize potential service enhancements. The study should also explore ways to make it easier for

riders to transfer to other bus routes without having to travel to the downtown station to complete a transfer. Ideally, the study will be able to identify opportunities to provide more direct travel and reduce travel times to make transit a more attractive travel option. Finally, supporting roadway projects that eliminate at-grade rail crossing delays can be expected to increase safety for transit riders, reduce travel delays, and provide more reliable service.

- ▶ **Transit-Supportive Policies** | Providing a successful transit service depends on more than reliable buses and route alignments. Transit supportive land use and roadway improvements are critical to providing a reliable, convenient, and safe travel option. Providing connected and well-maintained sidewalks and bike paths/trails are important to accessing transit. Similarly, proximity to higher-density residential or commercial land uses can support transit use, so that riders don't have to walk long distances to reach their destination after exiting the bus. While this can be somewhat challenging to implement in smaller communities, even small transit-supportive investments can benefit transit operations.
- ▶ **Technology Advancements** | Transportation service technology and platforms are developing rapidly, and it can be difficult to predict the type of services that will be available in the next few years, let alone the next ten to twenty years. Examples of current technology include Wi-Fi on buses and real-time tracking to see when buses will arrive at a bus stop. Additional improvements, such as mobile phone application platforms that allow transit agencies, transportation network companies (like Uber or Lyft), and other organizations to coordinate their transportation resources to help people get where they need to go, are being used in other cities and could one day be used in Decatur. Continued technology advancements should be monitored to determine if there are potential applications that could help better provide transit/mobility services to the Decatur region.
- ▶ **Intercity Bus and Commuter Vanpools** | The FAST Act requires transportation plans to consider improvements that support intercity transportation (including intercity buses, intercity bus facilities, and commuter vanpool providers). DPTS has had recent discussions with Peoria Charter about potentially using the downtown transfer station to provide service to Champaign, Bloomington, Lincoln, and Peoria. These discussions did not advance and at present there are no plans to bring intercity bus service to Decatur. However, this is something that should be monitored and perhaps pursued in the future.
- ▶ **High-Speed Passenger Rail Service** | Decatur is identified as a stop along a high-speed rail line connecting Chicago and St. Louis. While still early in the planning stages, this long-range improvement would bring significant economic benefits to the region. DUATS should continue to support and monitor progress related to high-speed passenger rail service being developed in the DUATS MPA.

### Fiscally Constrained Transit Plan

A feasible transit service relies upon secure funding sources and sufficient revenue to support the continuing operation and potential expansion of public transportation services. The purpose of this analysis is to evaluate the financial feasibility of the DPTS to the year 2045. Transit operations can be divided into two categories: operating costs and capital improvements. These costs are described in the following.

Operating Expenses and Revenues

Operating costs for DPTS service, between 2014 and 2018, averaged approximately \$6.8 million, reaching a high of approximately \$7.5 million in FY 2020. The primary operating revenue sources are provided at the federal and state levels. Federal funding has made up approximately 23 percent of DPTS operating costs while the State of Illinois has covered between 63 to 65 percent. The remaining funds are generated by the transit system—primarily bus and paratransit fares, but also some advertising revenue. The City of Decatur also contributes funds to support DPTS operations.

To analyze potential future year transit financial conditions for the LRTP, it is necessary to make some assumptions regarding future year operating expenses and revenue sources. No major service modification or expansion is currently anticipated, so future year projections assume the increases shown in Table 6-10. The annual percentage increases are based on the five-year averages for the DPTS between 2014 and 2018.

Between 2014 and 2018, operating expenses have increased an average of 3.5 percent (Table 6-7). However, it should be noted that operating expenses between 2017 to 2018 increased 7.3 percent. This recent increase should be monitored to ensure that this trend does not continue and adversely impact future year transit operating projections.

Table 6-7. Estimated Transit Expenses/Revenue Change

Expenses	Annual Increase (unless otherwise noted)
Operating	3.5%

Revenues	Annual Increase (unless otherwise noted)
FTA 5307	4.1%
State	Assumes will cover 64% of annual service cost
System Revenue	3.5%
City of Decatur	2.2%

During this same five-year period, FTA 5307 funding has increased at approximately 4.1 percent annually. State funding has been increasing at approximately 6 percent per year; however, in 2018 that doubled to 12 percent. State funding remains consistent at approximately a 65 percent reimbursement rate, which has not changed since it was increased from the 55 percent reimbursement rate in 2008. For the future year projections, it is assumed that state funding will represent a 64 percent reimbursement rate through 2045. DPTS generated revenues have averaged approximately a 3.5 percent annual increase and the City of Decatur contributions have increased an average of 2.2 percent per year. These recent five-year averages are continued in the future projections, through the year 2045, which are displayed in Table 6-8.

Table 6-8: DPTS Projected Operating Expenses (2019 – 2045)

Year	Operating Costs (in \$1,000)	Revenue Sources (in \$1,000)					Estimated Deficit / Reserve	Percent Funded
		FTA 5307	State	System Revenues	Local	Total		
2014	\$6,411	\$1,400	\$4,166	\$660	\$185	\$6,411	\$0	100.0%
2015	\$6,534	\$1,475	\$4,246	\$683	\$195	\$6,599	\$65	101.0%
2016	\$6,763	\$1,550	\$4,394	\$707	\$111	\$6,763	\$0	100.0%
2017	\$7,000	\$1,600	\$4,549	\$732	\$120	\$7,000	\$0	100.0%
2018	\$7,513	\$1,800	\$4,708	\$757	\$130	\$7,395	(\$118)	98.4%
2019	\$7,775	\$1,874	\$4,976	\$784	\$133	\$7,766	(\$9)	99.9%
2020	\$8,048	\$1,951	\$5,150	\$811	\$136	\$8,048	\$0	100.0%
2021	\$8,329	\$2,031	\$5,331	\$840	\$139	\$8,339	\$10	100.1%
2022	\$8,621	\$2,114	\$5,517	\$869	\$142	\$8,642	\$21	100.2%
2023	\$8,922	\$2,201	\$5,710	\$899	\$145	\$8,955	\$32	100.4%
2024	\$9,235	\$2,291	\$5,910	\$931	\$148	\$9,280	\$45	100.5%
2025	\$9,558	\$2,385	\$6,117	\$963	\$151	\$9,616	\$58	100.6%
2026	\$9,893	\$2,482	\$6,331	\$997	\$154	\$9,965	\$73	100.7%
2027	\$10,239	\$2,584	\$6,553	\$1,032	\$158	\$10,327	\$88	100.9%
2028	\$10,597	\$2,690	\$6,782	\$1,068	\$161	\$10,702	\$105	101.0%
2029	\$10,968	\$2,800	\$7,020	\$1,105	\$165	\$11,090	\$122	101.1%
2030	\$11,352	\$2,915	\$7,265	\$1,144	\$169	\$11,493	\$141	101.2%
2031	\$11,749	\$3,035	\$7,520	\$1,184	\$172	\$11,911	\$162	101.4%
2032	\$12,160	\$3,159	\$7,783	\$1,226	\$176	\$12,344	\$183	101.5%
2033	\$12,586	\$3,289	\$8,055	\$1,269	\$180	\$12,792	\$206	101.6%
2034	\$13,027	\$3,424	\$8,337	\$1,313	\$184	\$13,257	\$231	101.8%
2035	\$13,483	\$3,564	\$8,629	\$1,359	\$188	\$13,740	\$257	101.9%
2036	\$13,954	\$3,710	\$8,931	\$1,406	\$192	\$14,239	\$285	102.0%
2037	\$14,443	\$3,862	\$9,243	\$1,456	\$196	\$14,758	\$315	102.2%
2038	\$14,948	\$4,021	\$9,567	\$1,507	\$201	\$15,295	\$346	102.3%
2039	\$15,471	\$4,185	\$9,902	\$1,559	\$205	\$15,852	\$380	102.5%
2040	\$16,013	\$4,357	\$10,248	\$1,614	\$210	\$16,429	\$416	102.6%
2041	\$16,573	\$4,536	\$10,607	\$1,670	\$214	\$17,027	\$454	102.7%
2042	\$17,154	\$4,722	\$10,978	\$1,729	\$219	\$17,648	\$494	102.9%
2043	\$17,754	\$4,915	\$11,362	\$1,789	\$224	\$18,291	\$537	103.0%
2044	\$18,375	\$5,117	\$11,760	\$1,852	\$229	\$18,958	\$582	103.2%
2045	\$19,018	\$5,327	\$12,172	\$1,917	\$234	\$19,649	\$630	103.3%

Source: AECOM

Note: 2019 to 2045 projections based on recent 5-year averages. Does not assume any major service improvements.

It is estimated that the DPTS operating expenses between 2019 and 2045 will total approximately \$340 million. It should be noted that several variables can impact these projections. For example, the expansion of service, by adding routes or hours of service, would need to be evaluated in terms of the financial impacts. At present, the 2045 LRTP does not include any service expansion recommendations; however, if the planned COA identifies potential service changes, the LRTP could be amended to reflect the updates. In addition, it is difficult to estimate future year funding levels over the next twenty-five years as a number of factors could influence revenues. However, the recent State of Illinois Capital Bill is a positive move that should help stabilize—and potentially increase—funding for public transportation systems, including DPTS. Another consideration is that the revenues do not assume any increase in transit fares over the twenty-five year period. In all likelihood, transit fares will increase at least a few times to generate additional revenue. Based

upon the future year assumptions and projections, DPTS operating revenue is reasonably projected to be sufficient to cover operating expenses through the year 2045. If funding gaps do occur, it could result in one or more of the following:

- ▶ **Increased Transit Fares** | Transit fares would need to be increased to generate additional funds to cover increasing operating costs. Increasing transit fares is never a popular decision but is one that is often necessary to offset rising operating costs;
- ▶ **Service Cuts** | If funding levels do not increase at a higher rate than the projected levels, some elements of the transit service may need to be eliminated or scaled back to reduce operating costs;
- ▶ **Limited Ability to Extend Service** | Without additional funding sources it would be extremely difficult to extend the hours of transit operation to provide later service or expand current service beyond the existing coverage area to other communities in the MPA; and,
- ▶ **Increased Funding from Other Communities** | Additional funding from other communities would likely be necessary to provide expansion of transit service throughout the MPA.

### Capital Improvements

The regularly scheduled replacement of transit vehicles represents the most significant capital improvement expense. The current DUATS TIP (FY 2020 – FY 2023) includes the replacement of the existing fleet which has passed the useful life threshold. FY 2020 includes the purchase of 14 30' heavy-duty, low-floor diesel buses to replace 13 2001 buses and one 2009 bus. FY 2021 includes the purchase of four new buses to replace four 2009 buses, and FY 2022 includes the purchase of four new buses to replace four 2010 buses. Table 6-9 summarizes the estimated fleet replacement, including paratransit and maintenance vehicles through the year 2045. It is estimated that approximately \$35 million will be needed over the next twenty-five years.

Table 6-9: DPTS Capital Improvements – Fixed-Route Fleet Replacement

Year	Estimated Vehicle Replacement						Total
	Buses		Paratransit / Vans		Maintenance Vehicles		
	Number	Est. Cost	Number	Est. Cost	Number	Est. Cost	
2019	1	\$400	-	\$0	-	\$0	\$400
2020	14	\$5,936	-	\$0	-	\$0	\$5,936
2021	4	\$1,696	6	\$348	-	\$0	\$2,044
2022	4	\$1,828	-	\$0	1	\$60	\$1,888
2023	-	\$0	-	\$0	-	\$0	\$0
2024	-	\$0	2	\$121	-	\$0	\$121
2025	-	\$0	-	\$0	-	\$0	\$0
2026	-	\$0	-	\$0	-	\$0	\$0
2027	-	\$0	3	\$188	1	\$64	\$252
2028	-	\$0	3	\$190	-	\$0	\$190
2029	-	\$0	2	\$128	-	\$0	\$128
2030	-	\$0	2	\$130	-	\$0	\$130
2031	8	\$3,999	-	\$0	-	\$0	\$3,999
2032	7	\$3,534	-	\$0	1	\$68	\$3,601
2033	4	\$2,039	-	\$0	-	\$0	\$2,039
2034	4	\$2,060	3	\$204	-	\$0	\$2,264
2035	-	\$0	3	\$207	-	\$0	\$207
2036	-	\$0	2	\$139	-	\$0	\$139
2037	-	\$0	2	\$141	1	\$72	\$213
2038	-	\$0	-	\$0	-	\$0	\$0
2039	-	\$0	-	\$0	-	\$0	\$0
2040	-	\$0	2	\$146	-	\$0	\$146
2041	-	\$0	3	\$222	-	\$0	\$222
2042	-	\$0	3	\$225	1	\$76	\$301
2043	8	\$4,506	2	\$152	-	\$0	\$4,657
2044	7	\$3,982	2	\$153	-	\$0	\$4,135
2045	4	\$2,298	-	\$0	-	\$0	\$2,298
	65	\$32,277	40	\$2,694	5	\$339	\$35,311

SOURCE: DPTS Fleet Inventory; AECOM projected estimates.

NOTE: Buses assume a 1 percent annual cost increase; paratransit and maintenance vehicles assume 1.2 percent annual increase.

In total, it is estimated that approximately 65 buses will need to be purchased between 2019 and 2045. This assumes the replacement of buses will occur at the FTA minimum bus life of 12 years and does not currently anticipate a need for additional buses for expanded service. It is anticipated that 40 paratransit vehicles will be replaced during this same period, assuming replacement every six years. In addition, it is assumed that two additional paratransit vehicles will be needed in 2030 and two more additional vehicles in 2040 to accommodate an aging population and growing demand for paratransit services. Finally, the replacement, or addition of, maintenance vehicles are assumed to occur every five years.

Non-vehicle capital improvements are summarized in Table 6-10. These capital improvements include such items as bus shelters, new technology/equipment (for buses and dispatch, etc.), repairs to maintenance facilities, etc. Non-vehicle capital costs included in the FY 2020 – FY 2023 TIP were used as a baseline to assume future year capital improvements. In total, it is estimated that non-vehicle capital improvements will total approximately \$12 million through the year 2045.

Table 6-10: Non-Vehicle Capital Improvements

Year	Est. Cost	Year	Est. Cost
2019	-	2033	\$470
2020	\$330	2034	\$484
2021	\$469	2035	\$498
2022	\$575	2036	\$513
2023	\$60	2037	\$529
2024	\$360	2038	\$545
2025	\$371	2039	\$561
2026	\$382	2040	\$578
2027	\$393	2041	\$595
2028	\$405	2042	\$613
2029	\$417	2043	\$631
2030	\$430	2044	\$650
2031	\$443	2045	\$670
2032	\$456	Total (2019 - 2045)	\$12,427

SOURCE: DPTS Capital Improvements FY 2020 – FY 2023 TIP; AECOM projected estimates.

NOTE: 2024 cost is the FY 2020 – FY 2023 TIP average; each additional year assumes a 3 percent annual increase.

It should be noted that the LRTP capital improvements are a very high-level estimate of vehicle and non-vehicle needs over the next twenty-five years. Several factors could influence these projections and the 2020 COA findings should be used to update the operating and capital costs to reflect potential future system modifications. For example, if DPTS were to change to electric vehicles, additional costs would need to be considered to account for a different vehicle type, as well as the necessary maintenance upgrades that would be needed to accommodate a new vehicle. However, based on current assumptions it is believed that DPTS will have sufficient funding to provide the current level of transit services (with modest paratransit service increase) through the year 2045.

### Human Service Transportation Plan

An increasing number of people are unable to get to work, run errands, or reach medical services simply because they do not have access to reliable transportation. This group of transportation disadvantaged includes individuals with disabilities who cannot operate vehicles or travel outside of the home on their own because of medical conditions or limitations; individuals who cannot afford their own automobile; and, individuals without access to public transportation.

To enable these individuals to travel for employment, medical, education, and other needs, state and federal grants are available to provide transportation services that help elderly persons, persons with disabilities and/or low-income persons get to their destinations. In urbanized areas, fixed-route transit service and supplemental paratransit service are often available to meet many of these needs. In rural and smaller urban areas, however, public transportation service is less available and human service providers such as senior centers must often find other ways to provide their clients with transportation.

Federal transit law requires that projects selected for funding under the Enhanced Mobility for Individuals and Individuals with Disabilities (Section 5310) Program be "included in a locally developed, coordinated public transit-human services transportation plan," and that the plan be

## Recommended Plan

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"developed and approved through a process that included participation by seniors, individuals with disabilities, representatives of public, private, and nonprofit transportation and human services providers, and other members of the public" utilizing transportation services.

These coordinated plans identify the transportation needs of individuals with disabilities, older adults, and people with low incomes; provide strategies for meeting these needs; and prioritize transportation services for funding and implementation. The coordinated public transit-human service transportation plan (HSTP) is intended to maximize the collective coverage area of the targeted programs, increase service options, increase efficiency, and address the needs through a process that includes representatives of public, private, and non-profit transportation and human services providers and the users of these services.

### Region 8 Human Service Transportation Plan

Each state receives FTA funds for the programs subject to the HSTP coordination process, and each state is required to determine how best to meet the mandate for coordination. The Illinois Department of Transportation – Office of Intermodal Project Implementation (IDOT-OIPI) established eleven HSTP regions and a coordinator for each. The Champaign County Regional Planning Commission (CCRPC) is the MPO for the Champaign-Urbana Urbanized Area and also facilitates the development of the Region 8 HSTP. The Region 8 HSTP includes Champaign, Clark, Coles, Cumberland, DeWitt, Douglas, Edgar, Macon, Moultrie, Piatt, Shelby, and Vermilion counties in Illinois. The Region 8 HSTP was approved on December 14, 2017 and meets the coordination mandate stipulated by FAST Act and IDOT.

The Region 8 HSTP consists of six major components:

- ▶ An overview of current transportation legislation and funding;
- ▶ Public participation and the planning process;
- ▶ Existing conditions and demographics of the region;
- ▶ A view of mobility today, analyzing major trip generators, top employers, and existing transportation services within the region;
- ▶ Service coordination, gaps, unmet needs, and duplication; and
- ▶ A vision for mobility tomorrow, identifying goals and objectives for the region.

Specific information as it relates to Macon County is available within the Region 8 HSTP. A copy of the Region 8 HSTP is available using the following link:

[https://ccrpc.org/wp-content/uploads/2018/03/HSTP\\_Region-8\\_2017\\_ADA\\_Adopted-1.pdf](https://ccrpc.org/wp-content/uploads/2018/03/HSTP_Region-8_2017_ADA_Adopted-1.pdf)

### DUATS 5310 Funding

The DUATS FY 2020 – FY 2023 TIP identifies \$223,000 in funding to support the purchase of three paratransit vehicles (one vehicle in 2017, one in 2018, and one in 2019). Macon Resources, Inc. is identified as the lead agency and funding is identified through 5310 under Consolidated Vehicle Procurement Assistance. Currently no 5310 funds are received by any entity in the Decatur urbanized area.

## Supporting Transit Policies/Strategies

The following transit policies/strategies are identified as ways to support the future planning and implementation of improvements to address the DUATS regional transit priorities.

- ▶ **Administration and Funding** | Partnerships are key to coordinating effective and efficient transit services, as transit options are needed to travel not only within but between cities in the MPA. DPTS should continue to work in partnership with Macon County and surrounding communities as it explores opportunities to improve and expand transit opportunities in the MPA. This partnership may include shared participation in the transit planning process to ensure that local transit needs are met, and it could also include potential regional/shared funding mechanisms to support the expansion of DPTS services outside the existing service area. Financial support from surrounding communities gaining DPTS transit coverage is critical to expanding transit service.

DPTS could explore the creation of a Regional Transit Board that would be tasked with supporting and evaluating the effectiveness of regional transit operations and finding ways to support capital improvement plans. The board could potentially consist of representatives from Decatur, Macon County, Forsyth, and Mt. Zion, as well as other interested stakeholders. This is a strategy that has been identified in previous L RTPs.

In terms of becoming eligible for a wider range of federal and state funding, innovative partnerships with between highway and transit agencies can broaden the range of eligible activities that their funds can support. DPTS should also continue to explore funding opportunities related to paratransit services, Medicaid/Medicare, and cooperative agreements with Millikin University and Richland College.

- ▶ **Improved Transfers** | Improving the ease and convenience of transfers between existing routes and services can be expected to increase the competitiveness of transit as a means of transportation. DPTS should explore the potential for implementing perimeter transfer points between DPTS and the rural transportation system in order to better facilitate intercity transit trips. Additionally, fare collection strategies that make transfers between the two systems seamless would help to attract potential riders.
- ▶ **Intermodal Connections** | Aside from the transfer improvements described above, it is also important to pursue improved intermodal connections. Examples include supporting improved bicycle connections, both at the Transit Center and major bus stop locations, as well as coordinating with taxi services, transportation network companies, and other providers to enable smooth connections at DPTS facilities.
- ▶ **Station and Stop Location Design Criteria** | Improved access to public transportation should be mandated through various administrative practices to ensure that transit user needs receive sufficient consideration. Access improvements should mostly include design criteria such as sidewalk geometry and expansion/repair, construction of shelters and benches, and installation of a comprehensively designed signage system. These and other design elements should be incorporated into transportation planning processes, and potentially into zoning review and other physical planning processes (discussed further in Land Use / Development Considerations).
- ▶ **Service Standards** | DPTS should maintain and enhance service standards for routing, on-time performance, route productivity, frequency of operation, special populations' needs and other standards to ensure the provision of quality services. The agency should periodically review community demographics, ridership by route, ridership demographics, etc., to determine whether the level of service provided meets the needs of all areas that DPTS serves. New technologies are emerging to improve data collection and analysis techniques (e.g., using automatic vehicle location systems and automatic passenger counters), which can improve planning and results.

Aside from fixed-route service standards, DPTS should also explore the opportunity to create vanpool/carpool programs in the DUATS MPA and surrounding area, as demand warrants and funding becomes available.

- ▶ **Land Use / Development Considerations** | DPTS and partnering communities should explore opportunities for transit-oriented development (TOD), which is a planning concept that draws from land use and development policies that support transit operations and ultimately help promote transit usage. Encouraging dense, mixed-use developments that are easily accessible via walking or bicycling can promote transit usage.

DPTS should encourage the adoption of consistent design standards, policies, and principles throughout the DUATS MPA to enhance accessibility and safety. This could include promoting the construction of sidewalks and curb cuts in existing neighborhoods that currently do not have them, supporting the repair and upkeep of existing sidewalks to provide better connections to transit facilities, and encouraging local agencies to include public transportation needs in their review of major commercial and residential developments to ensure transit/paratransit needs are sufficiently addressed (e.g., constructing sidewalks and bus stops). Such review will help to promote transit friendly design and encourage transit usage throughout the MPA.

Context Sensitive Solutions (CSS) can also encourage and promote alternative transportation modes such as public transit. Repaving sidewalks and constructing shared or dedicated non-motorized facilities that connect to transit stops are just two examples of improvements that can be incorporated with roadway or other transportation improvements and ultimately increase transit patronage.

- ▶ **Safety** | Technology improvements should be explored to enhance the safety of passengers on buses and vans and at the Transit Center. This may include the installation of on-board video equipment on all new and/or replacement buses and vans to provide an increased level of security, or potentially reviewing the need for additional cameras at the Transit Center, as warranted and when funding is available.

DPTS should consider the implementation of Automatic Vehicle Location (AVL) systems to help monitor transit and paratransit vehicle locations. Specific route location can be essential in the event of an emergency and can also help improve transit and paratransit efficiency.

## NON-MOTORIZED PRIORITIES

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Currently, the Decatur Park District and Macon County Conservation District (MCCD) are the two entities primarily responsible for planning park-related improvements, which include developing the non-motorized trail network. In some instances, trail projects are completed in coordination with planned roadway improvements. Both Forsyth and Mt. Zion are also actively involved in developing segments of the non-motorized system that will eventually form a continuous trail connection through the DUATS MPA.

DUATS supports the continued expansion of the bicycle network within the MPA by constructing new facilities to form a regional bicycle system. The Metro Area Greenways Plan is the primary plan that includes proposed trail locations and facilities have been carried forward in the 2045 LRTP.

The region continues to make progress in planning, designing, and constructing components of the regional trail system plan. Recent improvements include the construction of small trail segments in the southeast portion of the region and renovations to the Rock Springs-Fairview Bike Trail. The following items highlight key elements of the non-motorized plan.

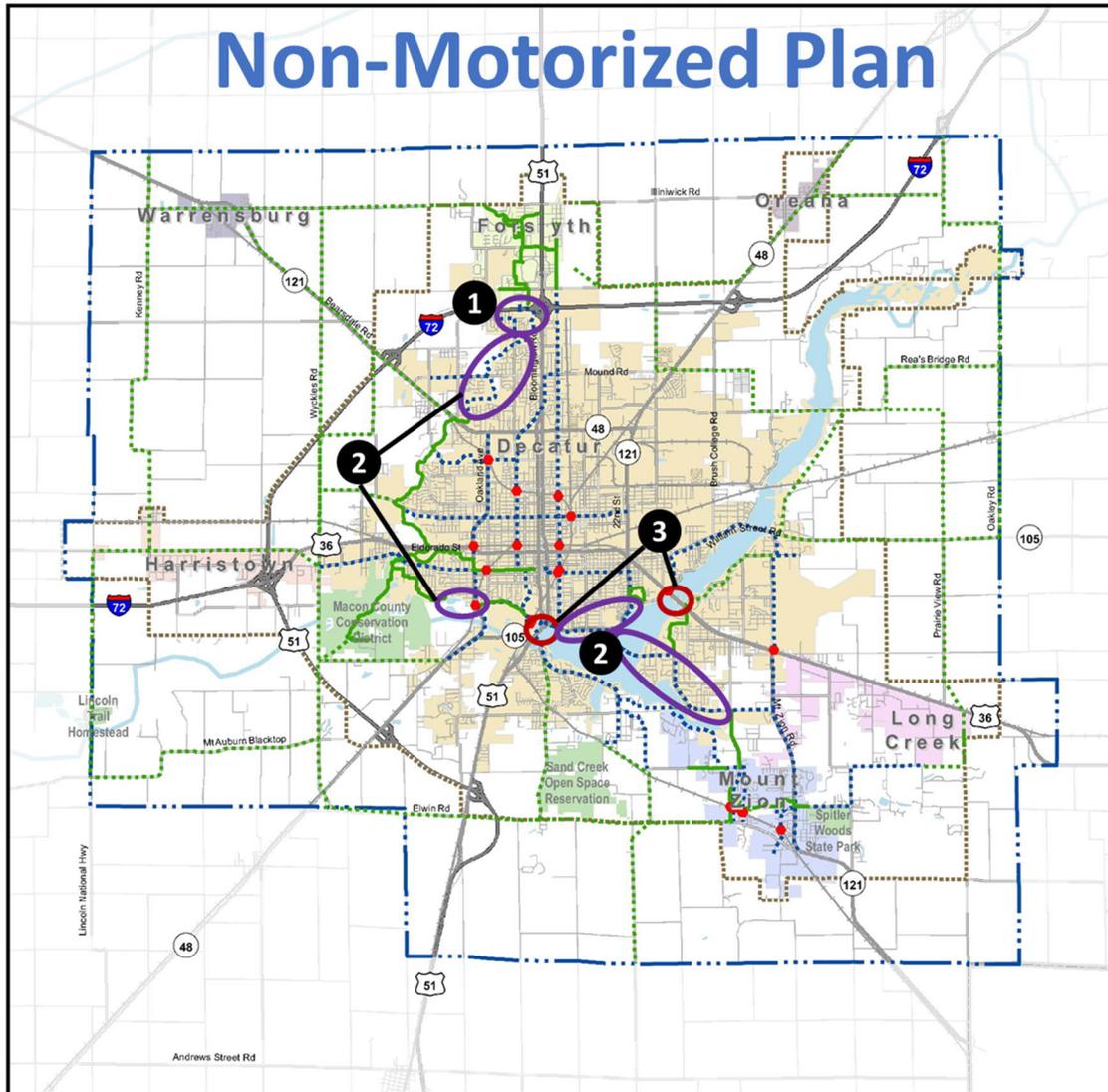
1. **I-72 Underpass** | I-72 has long been a barrier to bicycle travel between Decatur and Forsyth. Current plans include the construction of a portion of the Stevens Creek trail under I-72 to connect Cresthaven Park with Timber Lane in Forsyth.
2. **Completing a Continuous North-South Connection** | The long-term vision of the regional bicycle plan has been to create a continuous network of trails that would connect Mount Zion, Forsyth, and Decatur. With the completion of the Stevens Creek Trail extension under I-72, the next step is to identify a trail alignment to connect to Greendell Park. It is also important to eliminate additional trail gaps within the region, which are highlighted with purple ovals on the map in Figure 6-10. Various challenges exist with filling in the gaps, but efforts should continue to explore opportunities to further develop the trail network
3. **Lake Decatur Crossings** | DUATS supports detailed planning and engineering be completed to identify feasible solutions to accommodate bicycle travel across existing Lake Decatur bridge crossings. Lake Decatur crossings are a primary concern regarding bicycle travel within the MPA, and the key to providing a true regional bicycle network. Current roadway conditions at Lake Decatur bridges, in particular US 51 and US 36, are not conducive for safe non-motorized travel. The Lake Decatur area offers great opportunities for recreational activities, and providing safe, well-connected bridge crossings is an important element of the future non-motorized network.

One example of an upcoming bridge improvement involves the design/construction of an enhanced crossing along Reas Bridge Road, which will be four lanes and accommodate bicyclists and pedestrians. Other existing Lake Decatur crossings should be evaluated to determine how they might be retrofitted to better accommodate bicycle and pedestrian travel.

- ▶ **Sidewalk Investment** | Many areas within the MPA lack sidewalk or other provisions for non-motorized travel. This is a significant concern that also impacts public transportation in the form of first and last mile connections. Sidewalk improvements should be prioritized near bus stop locations. Opportunities to enhance sidewalks should also be coordinated with roadway improvements throughout the DUATS region.

Figure 6-10 highlights the non-motorized regional priorities while Table 6-11 summarizes key trail segments that have been identified in the Greenways Plan and DUATS Bicycle Plan.

Figure 6-10: Non-Motorized Plan



**Legend**

- 20-Year MPA Boundary
- DUATS Urbanized Boundary
- Railroad
- Bike Path/RR Intersections
- Bike Paths Existing
- Bike Plan
- Bike Paths Proposed



2.5

Miles

**2045**  
**Long Range Transportation Plan**  
 Decatur Urban Area Transportation Study

Data Sources: Illinois DNR, IDOT, US Census, Macon Co, DUATS  
 File: \uschg1fs001\prod\Projects\6064788\1900\_CAD\_GIS\920\_GIS\MXD\FutureBicycleNetwork106.mxd

Table 6-11: Non-Motorized Improvements and Cost Estimates

ID#	Project	Responsible Agency	Estimated Cost (2019 Dollars)	Status
1	Finley Creek Conservation Area Trail	Decatur Park District	\$1,100,000	No plans currently in progress
2	Lake Shore Trail	Decatur Park District	\$3,900,000	No plans currently in progress
3	Rock Springs Trail	Decatur Park District	\$1,100,000	No plans currently in progress
4	Spitler Woods Trail Head	Mt. Zion	\$700,000	No plans currently in progress
5	Improve bridge crossings over I-72	Decatur / Forsyth	None Identified	No plans currently in progress
6	Chandler Park to Scovill Park	Decatur Park District	\$1,400,000	No plans currently in progress
7	Fairview Park to Downtown	Decatur Park District	\$700,000	No plans currently in progress
8	Fairview Park to Forsyth	Decatur Park District	\$7,700,000	No plans currently in progress
9	Fairview Park to Harristown	Decatur Park District	\$700,000	No plans currently in progress
10	Fairview Park to Scovill GC	Decatur Park District	\$350,000	No plans currently in progress
11	Finley Creek Conservation Area to Baltimore Avenue	Mt. Zion	\$1,100,000	No plans currently in progress
12	Fort Daniels to Spitler Woods	Greenway Coalition	\$2,100,000	No plans currently in progress
13	Montezuma to Oakland Avenue	Forsyth	\$560,000	No plans currently in progress
14	Mt. Zion Park to Girl Scouts	Mt. Zion	\$700,000	No plans currently in progress
15	Neighborhood Park to Spitler Woods	Mt. Zion	\$1,400,000	No plans currently in progress
16	Neighborhood Park to Finley Creek Conservation Area	Mt. Zion	\$1,400,000	No plans currently in progress
17	Nelson Park to Faries Park	Decatur Park District	\$3,500,000	No plans currently in progress
18	IL-121 connection to US-36	Mt. Zion	\$1,400,000	No plans currently in progress
19	South Shores to Big Creek	Decatur Park District	\$2,800,000	No plans currently in progress
20	Woodland Drive to High School	Decatur Park District	\$700,000	No plans currently in progress

SOURCE: DUATS 2040 LRTP – updated for 2045 LRTP.

### Supporting Non-Motorized Policies and Strategies

The following policies and strategies are identified as ways to support DUATS non-motorized priorities.

- ▶ **Regional and Statewide Bicycle Planning** | Continue proactive regional bicycle planning to coordinate development of a bicycle network that serves all areas of the MPA and connects to statewide bicycle facilities beyond the MPA boundaries:
  - Complete the update of the Decatur Metro Area Greenways Plan and continually identify weaknesses and identify critical linkages to key destination
  - Identify and preserve potential rights-of-way (especially abandoned rail corridors as potential rails-to-trails projects) that could be used to develop bicycle / pedestrian facilities
  - Explore opportunities to expand the DUATS bicycle network beyond the MPA boundaries to connect to Statewide facilities. Specifically, support the development of a bicycle trail along the IL-48 corridor through Oreana to connect to the Heartland Pathways North and South trails as well as the Clinton Lake area.
- ▶ **Context Sensitive Solutions** | CSS is an interdisciplinary approach that seeks to develop, build and maintain cost-effective transportation facilities which fit into and reflect the project's surroundings - its "context". Through early, frequent, and meaningful communication with stakeholders, and a flexible and creative approach to design, the resulting projects

improve safety and mobility for the traveling public, while preserving and enhancing the scenic, economic, historic, and natural qualities of the settings through which they pass.

Potential CSS applications should include prioritizing bicycle and pedestrian improvements with any new or improved roadway projects. Bicyclists and pedestrians should be a primary consideration in any transportation planning project rather than an afterthought to roadway improvements.

Additionally, DUATS should seek consultation and coordinate with IDOT on these types of solutions; IDOT currently offers guidance on CSS principles and is a resource for implementing associated solutions.

A specific opportunity to implement CSS may present itself in the Beltway project. DUATS should support the accommodation of bicycle travel along the Beltway; both proposed overpasses should accommodate north-south bicycle travel via shared or dedicated lane facilities along with all necessary signage, striping, facilities, and / or signals

- ▶ [Safe Routes to Schools](#) | Prioritize bicycle and pedestrian improvements along corridors connecting to schools within the MPA. Develop an inventory of existing non-motorized facilities by identifying sidewalk conditions, crosswalks, traffic control device locations, traffic volumes, posted speed limits, and observed speed limits. This database could then be used to prioritize non-motorized improvements. DPTS should pursue dedicated funding opportunities to implement non-motorized improvements that enhance connection to area schools
- ▶ [Comprehensive Review of Bicycle Facilities](#) | An updated comprehensive review of existing and planned bicycle facilities should be completed to identify current levels of bicycle usage and the most appropriate corridors for bicycle and pedestrian facilities.
- ▶ [Land Use and Design Considerations](#) | Local agencies should adopt policies that emphasize and promote bicycle/pedestrian travel:
  - Amend or adopt building codes and development standards to emphasize bicycle/pedestrian travel. Building codes could be amended to require bicycle parking/racks as part of the building design or site plans. Terminal facilities to make riding more attractive should also be encouraged;
  - Adopt aggressive street repair policies that help support bicycle and pedestrian travel;
  - Designate and post bicycle route signs to increase awareness of motorists to share the roadway with bicyclists;
  - Prioritize improvements that link bicycle facilities with major transit stops;
  - Encourage the integration of land uses and mixed-use development. This type of development supports pedestrian and bicycle travel and would improve connections to transit stops;

## FUNDING OVERVIEW

Various federal, state, and local sources of funding are available for transportation infrastructure projects in the form of formula funds, grants, loans, and other special financing mechanisms. The typical sources of funding for projects in the DUATS region, including existing or potential, are discussed in this section.

### Federal Sources

The Fixing America's Surface Transportation (FAST) Act was signed into law on December 4, 2015, by President Obama. It authorized \$305 billion for fiscal years 2016 to 2020 for highway, safety, public transportation, motor carrier safety, hazardous materials safety, rail, research, technology, and statistics programs. The FAST Act provided the first dedicated source of federal funding for freight projects.<sup>10</sup>

Federal funding for transportation is derived in part from highway excise taxes (i.e., taxes paid when purchases are made on a specific good) on motor fuel and truck-related taxes on truck tires, sales of trucks and trailers, and heavy vehicle use. Excise taxes on gasoline and other motor fuels account for more than 85 percent of all receipts to the Federal Highway Trust Fund (HTF). Tax revenues are deposited into either the Highway Account or the Mass Transit Account of the Federal HTF and then distributed to the states. The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) then distribute funds from the Highway and the Mass Transit Accounts, respectively, to each state through a system of formula grants and discretionary allocations. The FAST Act extended the imposition of highway-user taxes through September 30, 2022, with generally no change to the tax rates as imposed under the Moving Ahead for Progress in the 21st Century Act (MAP-21).

According to estimates from the Congressional Budget Office (CBO),<sup>11</sup> since 2001 outlays have consistently exceeded the revenues to the trust fund. To address the shortfall, Congress has authorized transfers from the General Fund to the HTF to prevent the HTF from being depleted. Under the FAST Act, \$52 billion was transferred to the Highway Account and \$18 billion to the Transit Account, allowing the accounts to pay their obligations through the end of fiscal year 2020. Currently, there are on-going discussions concern the reauthorization of FAST Act, or a similar transportation bill.

The following sections list and describe the federal, state, and local existing and potential funding sources for highway infrastructure projects. They are grouped and listed in Figure 6-11.

<sup>10</sup> The FAST Act, <https://www.fhwa.dot.gov/fastact/>

<sup>11</sup> Congressional Budget Office, Limit Highway and Transit Funding to Expected Revenues, December 13, 2018, <https://www.cbo.gov/budget-options/2018/54774>

## FUNDING SOURCES

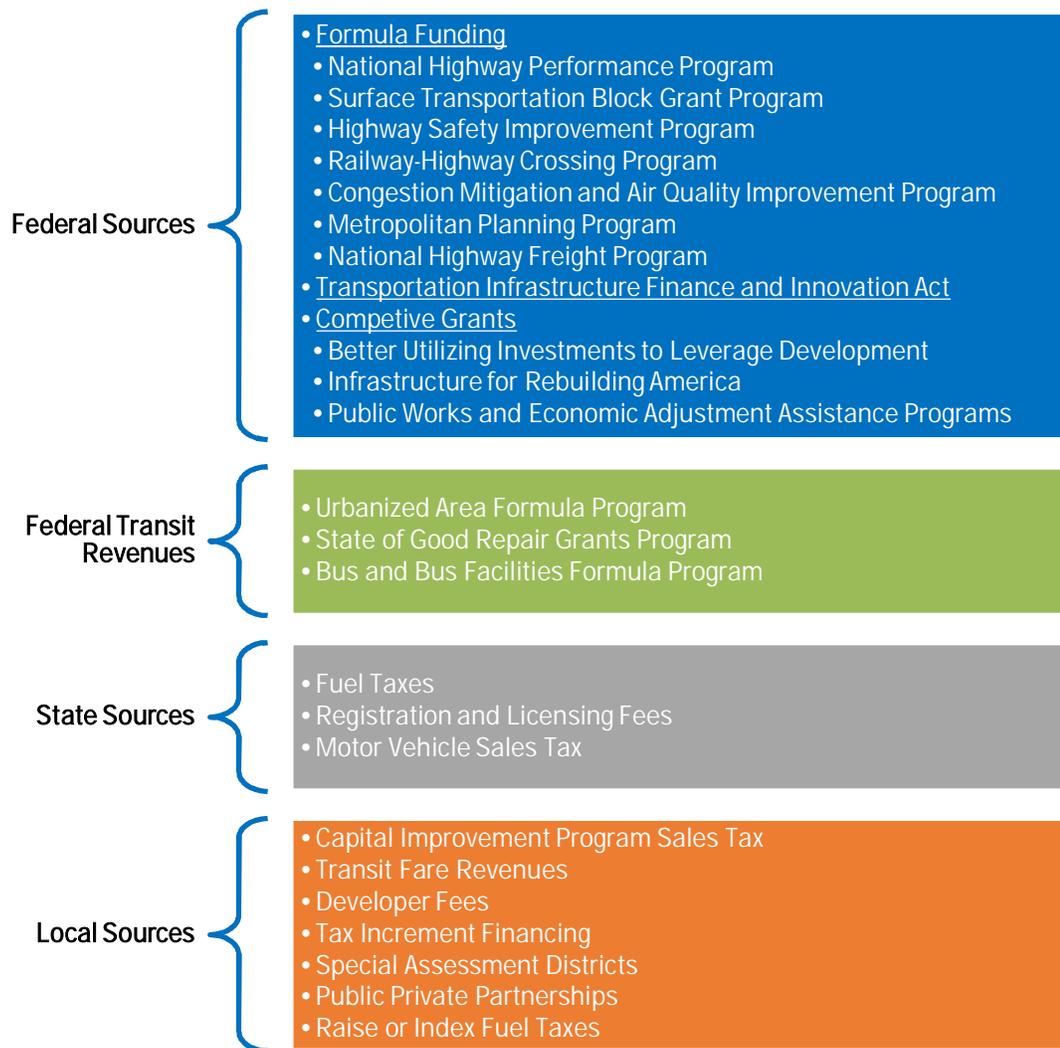
Formula Funds – programs apportion amounts to recipients based on formulas that consider population, miles of roadway, and other metrics

Grants – programs award funding typically through a competitive application and review process

Loans – programs award funding to projects through an application and review process, and the recipient is expected to repay the funding later

Special Funding Mechanisms – other potential vehicles for funding infrastructure projects that may not be currently or fully utilized

Figure 6-11: Funding Sources and Programs



Formula Funds

Under the FAST Act, several programs are available for funding infrastructure.<sup>12</sup> Funding allocations are given for the following programs (before post-apportionment set asides, penalties, and sequestration):

- ▶ **National Highway Performance Program (NHPP)** | The NHPP provides support for the condition and performance of the National Highway System (NHS), construction of new facilities on the NHS, and ensuring that investments achieve performance targets established by state asset management plans. Funds are apportioned based on formulas to each state, and states divide it among apportioned programs. Eligible activities include reconstruction, resurfacing, restoration, rehabilitation, and preservation of bridges on non-NHS highways, projects that reduce the risk of failure of NHS infrastructure, and subsidies for projects

<sup>12</sup> Projects can be funded through more than one program.

under the Transportation Infrastructure Finance and Innovation Act (TIFIA), a financing program discussed in further detail below.<sup>13</sup>

- ▶ **Surface Transportation Block Grant Program** | The program provides flexible spending to states based on apportionment formulas for state and local transportation needs. Eligible projects include the construction of highways, bridges, tunnels, transit capital projects, operational improvements, safety infrastructure projects, parking facilities, recreational trails, bicycle and pedestrian projects, planning and design of roadways and interstates, surface transportation planning, travel demand management strategies, congestion pricing, and numerous others as found in 23 U.S.C. 133(b)(15).<sup>14</sup>
- ▶ **Highway Safety Improvement Program (HSIP)** | The HSIP aims to reduce traffic fatalities and injuries on all public roads through a data-driven approach that focuses on performance. Funds are apportioned through a lump sum to the states to divide among programs. Eligible activities include safety projects that are consistent with the State's Strategic Highway Safety Plan (SHSP)<sup>15</sup> <sup>16</sup> and that correct or improve hazardous road locations or features. Eligible projects may include vehicle-to-infrastructure communications equipment, pedestrian hybrid beacons, roadway improvements to separate pedestrians and motor vehicles (including medians), and other physical projects.<sup>17</sup>
- ▶ **Railway-Highway Crossings Program** | The program provides funds for safety improvements that reduce fatalities, injuries, and crashes at public grade crossings. Funding is apportioned based on formulas and considers the number of public crossings by state. Eligible activities include relocation of highways to eliminate grade crossings and those that eliminate hazards posed by idling trains on crossings.<sup>18</sup>
- ▶ **Congestion Mitigation and Air Quality Improvement Program (CMAQ)** | The CMAQ program provides flexible funding to state and local governments for transportation projects that help meet the requirements of the Clean Air Act.<sup>19</sup> Funds are available for projects that reduce congestion and improve air quality in non-attainment areas. Funds are apportioned to states to divide among localities. Eligible activities include projects or programs that contribute to the attainment or maintenance of a national ambient air quality standard, have a high level of effectiveness in reducing air pollution, and are included in the MPO's Transportation Improvement Program (TIP). Electric and natural gas vehicles are eligible.<sup>20</sup>
- ▶ **Metropolitan Planning Program** | The program establishes a framework for metropolitan transportation investment decisions. Funds are apportioned by state. MPOs are required to compile metropolitan transportation plans, transportation improvement programs, and long-range transportation plans. MPOs should make plans that improve transportation system resiliency and reliability, reduce or mitigate stormwater impacts of surface transportation, and enhance travel and tourism.<sup>21</sup>

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<sup>13</sup> National Highway Performance Program, <https://www.fhwa.dot.gov/fastact/factsheets/nhppfs.cfm>

<sup>14</sup> Surface Transportation Block Grant Program, <https://www.fhwa.dot.gov/fastact/factsheets/stbgfs.cfm>

<sup>15</sup> Missouri's Blueprint – A Partnership Toward Zero Deaths 2016-2020, [http://s3-us-west-2.amazonaws.com/modot-pdfs/Blueprint\\_2016-2020.pdf](http://s3-us-west-2.amazonaws.com/modot-pdfs/Blueprint_2016-2020.pdf)

<sup>16</sup> 2017 Kansas Strategic Highway Safety Plan,

<https://www.ksdot.org/Assets/wwwksdotorg/bureaus/burTrafficSaf/reports/reportspdf/SHSP2017.pdf>

<sup>17</sup> Highway Safety Improvement Program, <https://www.fhwa.dot.gov/fastact/factsheets/hsipfs.cfm>

<sup>18</sup> Railway-Highway Crossings Program, <https://www.fhwa.dot.gov/fastact/factsheets/railwayhwcrossingsfst.cfm>

<sup>19</sup> Clean Air Act, 1963, <https://www.govinfo.gov/content/pkg/STATUTE-77/pdf/STATUTE-77-Pg392.pdf>

<sup>20</sup> Congestion Mitigation and Air Quality Improvement Program, <https://www.fhwa.dot.gov/fastact/factsheets/cmaqfs.cfm>

<sup>21</sup> Metropolitan Planning, <https://www.fhwa.dot.gov/fastact/factsheets/metropolitanplanningfs.cfm>

- ▶ **National Highway Freight Program** | The program aims to improve the efficient movement of freight on the National Highway Freight Network (NHFN). A lump sum is apportioned by state and then divided among programs at the local level. Eligible activities include projects and programs that contribute to the efficient movement of freight as identified in the state's freight plan. Examples may include ramp metering, truck-only lanes, adding or widening of shoulders, adding road capacity to address highway freight bottlenecks, separation of passenger vehicles and commercial vehicles, and numerous other projects.<sup>22</sup>

### TIFIA

The Transportation Infrastructure Finance and Innovation Act (TIFIA) provides federal credit assistance to eligible highway, transit, intercity rail, and some freight rail, intermodal facilities, and port modification projects. Under TIFIA, states, localities, public authorities, and some private entities can take advantage of three types of financial assistance: secured loans, loan guarantees, and lines of credit. Eligible projects include, for example, transit-oriented development projects and the capitalization of a rural projects fund within a state infrastructure bank. Other specific requirements must be met including project costs, loan amounts, and project types. TIFIA has a rolling application process, where applicants must submit letters of interest demonstrating creditworthiness and readiness to proceed. After an invitation is received from the TIFIA Joint Program Office, a formal application is required. TIFIA was authorized at \$275 million for fiscal years 2016 and 2017, increasing to \$285 million in fiscal year 2018 and \$300 million for fiscal years 2019 and 2020.<sup>23</sup>

### Competitive Grants

Competitive grant opportunities include programs administered by the US Department of Transportation and Department of Commerce (Economic Development Administration).

- ▶ **Better Utilizing Investments to Leverage Development (BUILD)**: The 2019 Consolidated Appropriations Act appropriated \$900 million to be awarded by the USDOT for National Infrastructure Investments. This appropriation stems from the program funded and implemented pursuant to the American Recovery and Reinvestment Act of 2009 and is known as the BUILD program. It was previously known as TIGER. Funds for the fiscal year 2019 BUILD Transportation grants program are to be awarded on a competitive basis for surface transportation infrastructure projects that will have a significant local or regional impact.

Under the most recent round of submissions, projects seeking funding must have met eligibility requirements and submitted an application by July 15, 2019. Projects are awarded based on the application package, review by USDOT, and ultimately the Secretary of USDOT's recommendation. Projects that show strong partnerships among stakeholders, both public and private, are better positioned to win. Projects must submit a benefit-cost analysis that demonstrates the project has greater benefits than it costs to construct and operate, i.e., a benefit cost ratio of greater than 1.0.

- ▶ **Infrastructure for Rebuilding America (INFRA)**: Like the BUILD grant program, INFRA is a competitive grant program. Established under the FAST Act, it aims to fund nationally and regionally significant freight projects. The federal share of the project may not exceed 80

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<sup>22</sup> National Highway Freight Program, <https://www.fhwa.dot.gov/fastact/factsheets/nhfpfs.cfm>

<sup>23</sup> Transportation Infrastructure Finance and Innovation Act (TIFIA), <https://www.fhwa.dot.gov/fastact/factsheets/tifiafs.cfm> and TIFIA Credit Program Overview, <https://www.transportation.gov/tifia/tifia-credit-program-overview>

percent, with 60 percent maximum of INFRA grant funds. Eligible projects include highway freight projects on the NHFN, highway or bridge projects that add capacity to an interstate or a national scenic area, and freight projects including intermodal, rail, or port projects, and grade-separation projects. The minimum award is \$5 million for small projects and \$25 million for large projects. Projects are evaluated based on selection criteria including a benefit-cost analysis and an application narrative. The Secretary of USDOT ultimately makes the final award recommendations. The most recent round of INFRA (FY 2019) was authorized up to \$950 million, with \$1 billion authorized for FY 2020.<sup>24</sup> FY 2019 INFRA applications were due in March 2019 and awards announced in July 2019.

- ▶ **Public Works and Economic Adjustment Assistance Programs:** These grant programs administered through the Economic Development Authority (EDA), a bureau within the Department of Commerce, provide investments that support construction, non-construction, technical assistance, and revolving loan fund projects on a competitive merit basis. Eligible applicants must be public or private non-profit organizations acting in cooperation with officials of a political subdivision of a state.

Projects must demonstrate economic distress under one or more of the following criteria: (i) an unemployment rate that is, for the most recent 24-month period for which data are available, at least one percentage point greater than the national average unemployment rate; (ii) per capita income that is, for the most recent period for which data are available, 80 percent or less of the national average per capita income; or (iii) a "Special Need," as determined by EDA. See the Notice of Funding Opportunity (NOFO) for details on economic distress, including how the EDA defines special need.

The average size of a Public Works program investment is \$1.4 million and funds 80-150 projects per year. The average award for the Economic Adjustment Assistance program is \$650,000 and funds 70-140 projects per year. Implementation projects can expect funding of up to \$2 million. Eligible projects may apply on an ongoing basis as there is no deadline for the current NOFO.<sup>25</sup>

### Transit Revenues

Federal grant programs in support of transit services include those commonly referred to as Section 5307, Section 5337, and Section 5339, described in further detail below.

- ▶ **Urbanized Area Formula Program (49 U.S.C. 5307):** Federal funds are made available for urbanized areas and to Governors for transit capital and operating assistance and for transportation-related planning. The term "urbanized area" refers to an incorporated area with a population of 50,000 or more that is designated as such by the U.S. Bureau of the Census. Recipients must be eligible public bodies. A wide variety of activities are eligible for funding assistance: planning, engineering design and evaluation of transit projects, capital investments in buses and bus-related activities (including vehicle replacement, bus overhaul and rebuilding, security equipment, and construction of maintenance and passenger facilities), and capital investments in new and existing fixed-guideway systems (including rolling stock, overhaul and rebuilding of vehicles, track, signals, communications, and computer hardware/software). Also, all preventive maintenance and some Americans with Disabilities Act (ADA) complementary paratransit service costs are considered capital expenses.

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<sup>24</sup> Infrastructure for Rebuilding America (INFRA), <https://www.fhwa.dot.gov/fastact/factsheets/infragrantsfs.cfm>

<sup>25</sup> FY 2018 Economic Development Assistance Programs NOFO, [https://www.grants.gov/web/grants/view\\_opportunity.html?oppld=306735](https://www.grants.gov/web/grants/view_opportunity.html?oppld=306735)

Funds are allocated according to legislative formulas. For areas with a population between 50,000 and 200,000, the formula is based on population and population density. For areas of more 200,000, the formula combines bus revenue vehicle miles, bus passenger miles, fixed-guideway revenue vehicle and route miles, population, and population density factors. A 20 percent non-federal match is required.

- ▶ **State of Good Repair Grants Program (49 U.S.C. 5337):** The State of Good Repair grants are capital assistance funds for maintenance, replacement, and rehabilitation projects of high-intensity fixed guideway and bus systems. The funds help agencies maintain a state of good repair. Funds are eligible to be spent on rolling stock, track, line equipment and structures, signals and communication, power equipment, security systems, passenger stations, maintenance facilities and equipment, and operational support equipment. Funds are apportioned by statutory formulas and a 20 percent non-federal match is required.
- ▶ **Bus and Bus Facilities Formula Program (49 U.S.C. 5339):** The Bus and Bus Facilities Formula program provides capital assistance for new and replacement buses and related equipment and facilities. Eligible capital projects include the purchasing of buses for fleet and service expansion, bus maintenance and administrative facilities, transfer facilities, bus malls, transportation centers, intermodal terminals, park-and-ride stations, replacement vehicles, bus rebuilds, bus preventive maintenance, passenger amenities such as passenger shelters and bus stop signs, accessory and miscellaneous equipment such as mobile radio units, supervisory vehicles, fare boxes, computers and shop and garage equipment. Funds are allocated on a discretionary basis and through competitive grants, and a minimum 20 percent non-federal match is required. The USDOT Secretary has the discretion to allocate funds, though Congress fully earmarks all available funding.

## State Funding/Revenue

In 2019 Illinois passed a capital package of legislation toward transportation, water infrastructure, natural resources, open space, school construction, affordable housing, and other projects. With respect to transportation, it includes an additional \$2.5 billion annually for transportation, a portion of which will be dedicated over approximately 20 to 30 years to paying off \$11 billion in new transportation bonds authorized in the capital bill. Between bond funds and ongoing annual funding, over the next six years, an estimated \$14 billion is provided for roads and bridges, \$4.5 billion for transit, and \$1.5 billion for passenger rail, freight rail, ports, and airports. About 54 percent will be funded by bonds, with the remainder provided as ongoing annual funding.

Another important aspect of State funding is the reimbursement of 65 percent of eligible transit operating expenses. Illinois does this through the provision of the Downstate Public Transportation Fund, which provides reimbursements to transit operators for a percentage of their public transit operating expenses. Eligible participants are defined by the Downstate Public Transportation Act. In 2008 the state increased its funding for transit operations from 55 percent up to 65 percent reimbursement for eligible transit operating expenses.

State funding for transportation traditionally been primarily paid for out of user fees including gas taxes and motor vehicle registration fees. Among the most common forms of funding are the following:

- ▶ **Motor Fuel Tax (MFT) |** The MFT is collected on each gallon of gas that is purchased. Beginning in 2019, the State of Illinois levies a tax of 38.0 cents per gallon of gasoline and 45.5 cents per gallon of diesel fuel and the rate is annually indexed to the federally calculated Consumer Price Index for all Urban Consumers.

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- ▶ [Vehicle Registration Fees](#) | These annual fees are assessed in accordance with the class of vehicle. Beginning in 2019, these fees increased depending on the vehicle class.
- ▶ [Truck Access Routes](#) | Truck access routes have a special funding category available for designated truck routes to upgrade roads to accommodate 80,000 pound truck loads.
- ▶ [Illinois Commerce Commission \(ICC\)](#) | The ICC provides funding for safety improvements of highway-rail grade crossings on state and local roads.
- ▶ [Economic Development Funds](#) | These funds may be used for roadway transportation projects if the new or improved facility will attract or create jobs. This program can be used for industrial, commercial and recreational/entertainment projects.

### Local Funding

The basis of local funding of transportation projects in the local municipalities and Macon County is primarily through federal and state allocations and block grants. However, there exist additional revenues which primarily come from property taxes, sales taxes, special assessments, and special tax districts. General funds for roadway maintenance may be obligated from the general property, sales, and other tax proceeds for transportation purposes. While this represents a funding source, the trend in local government is to use general fund property tax proceeds for operation and maintenance of general government. Additional funding includes:

- ▶ [Township Bridge Program](#) | Township Bridge Program funds are used to construct bridges twenty feet or more in length for the safe transportation of school children, the movement of agriculture equipment and products, rural mail routes, and the traffic needs of the general public. Funds are allocated to each eligible road district based on the total township mileage. Townships must levy a 0.08 percent road and bridge tax to qualify for the allocation.
- ▶ [Bonds](#) | Transportation projects may be financed utilizing bonded indebtedness. This method allows a unit of government to raise capital through the sale of public bonds to be repaid with interest using general property tax receipts, motor fuel tax, or revenue from the project upon completion. The City of Decatur has utilized this financing alternative to complete several public transportation projects.
- ▶ [Tax Increment Financing \(TIF\)](#) | The TIF technique captures all increases in property tax resulting from improvements to a property until such time as allowable project expenses have been paid. Proposed improvements and planned expenditures are defined in a plan and must meet eligibility requirements under the enabling legislation. City governments define the TIF district and program in consultation with units of local government impacted by the proposed district.
- ▶ [Capital Improvement Program \(CIP\)](#) | Funding for near-term (one to five years) transportation projects are identified in the State's multi-year program, a municipalities' Capital Improvement Program (CIP), and Macon County's CIP. Estimates of near-term transportation funding is based on appropriated levels of federal funding, cash flows of state funding sources, and city and county bonding programs and general revenue sources.

### Non-Motorized Funding

Funding programs that may be applied to non-motorized transportation programs and projects include the following:

- ▶ [Illinois Transportation Enhancement Program \(ITEP\)](#) | The ITEP program provides financial assistance and funding for projects that provide alternative modes of transportation. It is also designed to support enhancements that improve cultural, historic, aesthetic, and environmental aspects of the transportation system.
- ▶ [Illinois Bicycle Path Grant Program](#) | These reimbursable grant funds provide financial assistance for the acquisition, construction, and rehabilitation of public off-road, non-motorized bicycle paths and directly related support facilities. The program is administered by the Illinois Department of Natural Resources.
- ▶ [Recreational Trails Program \(RTP\)](#) | The RTP is a reimbursement grant program that provides funding assistance for acquisition, development, rehabilitation and maintenance of recreational trails and related facilities. The program is administered by the Illinois Department of Natural Resources.
- ▶ [Community Development Block Grant \(CDBG\) Funds](#) | CDBG funds are administered by Housing and Urban Development (HUD) and allocated to metropolitan areas by the Federal government on a formula basis. Historically, these funds have been used in the MPA to help with the replacement of sidewalks of eligible low and moderate-income neighborhoods.
- ▶ [Other Grants](#) | Other grants to assist in motorized recreational trails include the Local Government Snowmobile Program, the Snowmobile Trail Establishment Fund, and the Off-Highway Vehicle (OHV) Recreation Trails Program. Additional information on these programs is available from IDOT and IDNR.

## Freight

Funding for the maintenance of rail freight facilities comes primarily from private sources. Some economic development grants could be used to plan intermodal facilities or other projects that would attract or create jobs. With the growing emphasis on freight movement and the coordination of rail and highway interchange, more attention is likely to be given to this transportation sector in the future.

The Illinois Rail Freight Program provides capital assistance to communities, railroads and shippers to preserve and improve rail freight service in Illinois. For FY 2019-2024, the program proposes \$6.5 million from current federal and state revenues for rail freight improvements. The primary role of the program is to facilitate investments in rail service by serving as a link between interested parties and channeling government funds to projects that achieve statewide economic development. The program provides low-interest loans and, in some cases, grants to finance rail improvements that have the potential to boost job creation and retention, improve access to markets, and maintain transportation cost savings. The loan program targets projects where the repayment of the loan by the recipient provides loan funding for future projects and fosters permanent solutions to rail service problems. Projects are evaluated through a cost-benefit analysis. IDOT must demonstrate that projected benefits exceed projected costs before a project can be deemed eligible. While proposed projects for FY 2019 meet eligibility criteria, priorities may change, which could delay or alter project funding. There are two revolving loan funds:

- ▶ [The Rail Freight Loan Repayment Fund](#) | The state deposits the repayments of old federal rail freight loans into this fund for reuse as loans or grants for eligible projects. A total of \$500,000 is available in this fund for FY 2019.

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- ▶ [The State Loan Repayment Fund](#) | The state deposits the repayments of old state rail freight loans into this fund for reuse as loans or grants for eligible projects. A total of \$6 million is available in this fund for FY 2019.

## SYSTEM SECURITY

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Safety and Security are elements to be considered in the LRTP process. Safety and security are often used interchangeably; however, there exists a difference between the two concepts, which largely involves the issue of intent.

- ▶ **Safety** | Protection of persons or property from unintentional damage or destruction caused by accidental or natural events; and
- ▶ **Security** | Protection of persons or property from intentional damage or destruction caused by vandalism, criminal activity, or terrorist events.

Safety has been previously addressed in this plan. Security is addressed in this chapter of the LRTP. Incorporating security into the transportation planning process includes:

- ▶ Distinguish the separate yet interrelated issues of safety and security in the transportation planning process;
- ▶ Provide resources for transportation-related homeland security projects that would be identified through the regular transportation planning process, including those aimed at prevention, mitigation, response and recovery;
- ▶ Provide resources to improve international freight security in and around key freight gateways and hubs, including intermodal and Strategic Highway Network connectors;
- ▶ Provide resources to expedite urgent highway and public transportation security projects to address imminent damage or to repair damage caused by a terrorist attack against the United States, including structural hardening, relocation of roads from underneath critical structures, property acquisition to create secure zones, or repairing or replacing a bridge or tunnel that has been damaged or destroyed by a terrorist attack;
- ▶ Encourage the use of monitoring systems, such as ITS, to check the status or condition of key surface transportation facilities; and
- ▶ Inclusion into the planning process of security related stakeholders such as local law enforcement agencies, fire departments and rescue squads, federal response agencies, and the Department of Homeland Security (DHS).

### Addressing the Gaps in Security

DUATS will continue to study, create and establish relevant and specific goals, objectives and anticipated outcomes regarding existing and anticipated security and public safety issues. These include the following actions:

- ▶ Review current statewide plans for emergency planning / security elements;
- ▶ Develop security goals and appropriate strategies in conjunction with the Macon County Emergency Management Agency (MCEMA);
- ▶ Continue to work with DPTS to formulate appropriate security planning. DUATS will work with DPTS to incorporate the SPP into the state and local transportation planning process, as well as define the role of the DPTS, DUATS and the state in promoting security; and

DUATS will continue to support the following activities:

- ▶ **Develop ITS Architecture** | In coordination with the update of the Illinois Statewide ITS Architecture, a regional ITS architecture will be developed for DUATS. An ITS architecture is a framework for the coordinated, targeted deployment of various technologies on and

around the transportation network, as well as strategies to optimize their use, including tools that transportation managers can apply to increase safety, reduce congestion, and enhance traveler convenience.

The ITS architecture development process involves a range of stakeholders, including representatives from counties and municipalities, public safety and emergency services, transit agencies, major employers, and others that manage or rely on the region's transportation network. The DUATS regional ITS architecture was not released at the time the 2045 LRTP was completed.

- ▶ **Solicit Staff Review** | Emergency management personnel are continually invited to review and comment on public safety, general security and vehicle access as it relates to new roadway construction and proposed developments or redevelopment areas.
- ▶ **Increase Public Awareness** | Educate the public about how they should use the area transportation system in case of an emergency and/or disaster.
- ▶ **Evacuation Plan** | The City of Decatur and Macon County have jointly developed an evacuation plan as part of a larger emergency operations planning effort. The evacuation plan defines the procedures and policies that govern how the city and county would operate in the event of an emergency that would require the evacuation of part or the entire county.

The plan also outlines how local law enforcement and other public agencies should mobilize and coordinate their efforts to assist in evacuation procedures. These provisions are designed to coordinate with state and federal response efforts and focus on issues of safety and orderliness, which are of high importance in providing for an expeditious response.

- ▶ **Hazardous Materials Plan** | The hazardous materials plan establishes the policies and procedures under which Decatur and Macon County will operate in the event of a hazardous material emergency. It defines the roles, responsibilities, and relationships of government and private organizations in response to a hazardous materials incident. This plan provides assurance of appropriate response to protect the population of Macon County in the event of a hazardous material incident involving the transport, use, storage and/or processing of hazardous materials.
- ▶ **Terrorism Plan** | The Terrorism Consequence Management Plan establishes the policies and procedures under which Macon County will operate in the event of a terrorism emergency. This plan describes how local agencies and organizations are mobilized and coordinated in response to or support of a Weapons of Mass Destruction (WMD) emergency in response to terrorism. Also described are procedures to integrate with state and federal response efforts with Macon County capabilities.

The Macon County Terrorism Task Force has developed this plan in compliance with federal planning requirements contained in the Managing the Emergency Consequences of Terrorist Incidents guidelines, and its contents apply only to Macon County. It is intended to supplement the Macon County Emergency Operations Plan and, as such, does not conflict with the County Plan, which addresses a full range of major emergencies.

Additionally, the Illinois Plan for Radiological Accidents (IPRA) will be used during an Incident involving a potential or actual release of radiation from any source. Activities required to protect the public health and safety in such circumstances will be implemented in accordance with the procedures of the IPRA.

- ▶ **DPTS Security Plan** | DUATS will continue to work with DPTS to incorporate security review and updates into the state and local transportation planning process. Past actions to enhance the security of the public transit system include:

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- Made repairs to the perimeter fences of its facilities;
  - Installed camera systems on buses and ADA-accessible vans;
  - Installed a camera system in the vault room / farebox counting room;
  - Installed a camera system that monitors the inside and outside of Transit Center; and,
  - Installed an electronic keypad at the employee entrance to Transit Center which features individualized access codes for keyed entry authorization.
- ▶ [Ongoing Coordination with IEMA](#) | The Illinois Emergency Management Agency (IEMA) is responsible for coordinating mitigation, preparation, response, and recovery operations during disasters in the State of Illinois, which includes areas beyond the boundaries of Macon County. DUATS and its governing partners will continue to work with IEMA to plan for and take action regarding these types of events.

## ENVIRONMENTAL MITIGATION

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The federal government, through FAST Act and the mandates of various departments and bureaus, requires that environmental impacts and mitigation be an integral part of the planning processes, which includes LRTP updates.

### Environmental Objectives

DUATS is committed to wise stewardship of transportation planning dollars and effective decision-making including project selection, which is integrated and coordinated with land use, water, and natural resource planning and management. The Macon County – Decatur Comprehensive Plan encourages the establishment of environmental suitability as a key limiting factor in determining the nature and location of future development. This principle of environmental sensitivity applies to transportation planning as an extension or major modification of the transportation system. The identification of a full range of environmental concerns will occur early in the transportation planning and project development process.

IDOT administers all projects receiving federal funds, whether under state or local jurisdiction, and ensures that projects adhere to all applicable state and federal environmental laws. Since most transportation projects require a plan to address environmental impacts, IDOT and DUATS will continue to incorporate environmental mitigation policies and strategies in making transportation improvements. DUATS continues to foster positive relationships with environmental groups, government agencies, and the public at large when discussing infrastructure projects and has worked to make environmental considerations part of the transportation planning process.

DUATS has developed the objectives listed below to aid in the incorporation of environmental planning:

- ▶ Maintain and support the transportation system with improvements that are environmentally responsible and support conservation of the region's natural, cultural, historic, and aesthetic resources;
- ▶ Ensure that social, environmental, energy, regional and community, and other non-transportation goals, plans, and programs affecting transportation are considered in all phases of the transportation planning process;
- ▶ Identify, implement, or support public investment in transportation facilities and services that effectively address social, environmental, and energy goals of the community;
- ▶ Evaluate innovative methods for mitigating the environmental impacts of transportation facilities and improvements; and
- ▶ Encourage the shift of new developments that are typically scattered and are primarily vehicle-oriented to areas that are transit- and pedestrian-oriented, have existing transportation infrastructure in place, and/or utilize conservation design techniques.

### Environmental Mitigation Strategies and Procedures

The National Environmental Policy Act (NEPA) requires full disclosure of the impacts that federally funded transportation projects would have on the surrounding environment. NEPA also requires that impacts to resources be avoided altogether if possible. If impacts cannot be avoided, measures must be taken to minimize those impacts via compensation or mitigation.

Based on its mission and the provisions of state and federal environmental laws, IDOT makes every attempt to minimize the negative environmental impacts of projects it funds and directs both during construction and after completion. IDOT policies, strategies, and procedures are specifically designed to identify potential environmental impacts and to proactively take all reasonable steps to ensure the least environmental disruption or other negative consequences.

There are several key areas in which environmental mitigation activities are focused. Figure 6-12, Figure 6-13, and Figure 6-14 depict environmentally sensitive areas in the MPA. The following are the most commonly identified areas:

- ▶ Section 4(f) Lands;
- ▶ Section 6(f) Land Conversions;
- ▶ Cultural Resources (Historic Properties and Archaeological Sites);
- ▶ Threatened and Endangered Species (State and Federal) and Natural Areas;
- ▶ Farmlands;
- ▶ Wetlands ;
- ▶ Floodplains;
- ▶ Noise Abatement; and
- ▶ Air Quality

### Section 4(f) Lands

Section 4(f) of the USDOT Act of 1966 applies to any USDOT funded project which involves the use of any significant publicly owned public park, recreation area, or wildlife and waterfowl refuge and any land from a historic site of national, state or local significance. Special environmental analyses are required to determine if there is a feasible or prudent alternative to taking the proposed action involving the use of the 4(f) property. In addition, the project sponsor must demonstrate that all possible planning to minimize harm has occurred. These measures to minimize harm, which include mitigation, are documented in the 4(f) evaluation. IDOT, as part of its Bureau of Design and Environment (BDE) manual, has procedures in place for completing 4(f) evaluations that document these findings.

### Section 6(f) Land Conversion

Section 6(f) of the Land and Water Conservation Fund Act of 1965 applies to any USDOT funded projects which involve the use of lands which have Land and Water Conservation (LAWCON) or Open Space Land Acquisition and Development (OSLAD) funds involved in their purchase or development. IDOT's BDE manual has procedures in place for handling 6(f) lands when developing highway projects. These procedures focus on early and on-going coordination with local officials as well as the Illinois Department of Natural Resources.

### Cultural Resources (Historic Properties)

When IDOT develops a federally funded/regulated project, appropriate measures are taken to avoid and/or minimize impacts on properties that are included in or are eligible for the National Register of Historic Places. Where such properties will be affected, the Advisory Council on Historic Preservation shall be afforded a reasonable opportunity to comment prior to project approval. Special efforts shall be made to minimize harm to any National Historic Landmark. The IDOT BDE manual contains specific procedures for minimizing harm to historic resources in cooperation with the Advisory Council on Historic Preservation and the State Historic Preservation Officer.

### Threatened and Endangered Species/ Natural Areas

In the development of a project, special studies and coordination are required when the action may affect Federally-listed threatened and endangered species. Studies and coordination also are required for actions that may adversely impact State-listed species. IDOT also conducts studies and coordination activities on actions that may adversely impact areas included in or eligible for the Illinois Natural Areas Inventory. It is IDOT's policy that in the development of a project, an assessment shall be made of the likely impacts on species of plants or animals listed in the Federal and/or State level as threatened or endangered and on State-designated Natural Areas. Every effort is made to minimize the likelihood of jeopardizing the continued existence of listed threatened or endangered species or the destruction or adverse modification of a Natural Area. Efforts are also made to avoid negative impacts on areas of habitat designated as critical habitat or essential habitat. The BDE manual specifies procedures for avoiding and/or mitigating impacts on endangered or threatened species and Natural Areas including consultation with the U.S. Fish and Wildlife Service and the Illinois Department of Natural Resources.

### Farmlands

In the development of a project, consideration is given to the impacts that the action will cause in conversion of farmland to non-farm uses. Under certain circumstances, coordination must be initiated with the U.S. Department of Agriculture, Natural Resources Conservation Service, and/or the Illinois Department of Agriculture to evaluate the impacts on farmland and obtain the views of those agencies on alternatives to the proposed action. Proposed actions will be developed to be compatible with state, local government, and private programs and policies to protect farmland. The BDE manual outlines coordination procedures and defines those lands subject to these provisions.

### Wetlands Preservation

Protection and preservation of wetlands is an important environmental goal of IDOT. In this area, mitigation efforts are coordinated with other state and federal agencies and are clearly defined in both policy and procedures.

The Illinois Interagency Wetland Policy Act of 1989 (IWPA) includes the identification and delineation of jurisdictional wetlands. The Wetlands Group within the Illinois Natural History Survey performs this work under a statewide contract with the IDOT. Under the CWA (Clean Water Act) and IWPA, IDOT must demonstrate that all measures were taken to first avoid and then minimize impacts to wetlands to the fullest extent practicable. Unavoidable impacts are mitigated by way of wetland compensation through either restoration or creation of wetlands. Methods used by IDOT to restore or create wetlands follow the Illinois Wetland Restoration and Creation Guide. In addition to the INHS Wetlands Group, the Wetlands Geology Section at the Illinois State Geological Survey provides technical assistance to IDOT in locating, evaluating, and monitoring compensatory wetlands. All IDOT wetland compensation plans include a commitment to monitor planned wetlands for attainment of performance standards. Departmental procedures for ensuring compliance with the CWA and IWPA are detailed in the IDOT Wetlands Action Plan. There are no Wetland Compensation sites in the Decatur MPA.

### Floodplains

In the development of a federally funded project, special requirements are imposed by Executive Order 11988 when the project will entail a significant floodplain encroachment. These requirements are in addition to floodplain permit requirements and the special hydraulic analyses associated with determining bridge and culvert heights and widths for projects located in

floodplains. A project that will result in significant floodplain encroachment will require the preparation of an Environmental Assessment or Environmental Impact Statement. Both the IDOT BDE manual and the IDOT Water Quality Manual provide additional information and procedures for projects involving floodplains.

### Noise Abatement

Federal laws and regulations require that it is necessary to undertake special technical analyses to identify and evaluate the potential noise impacts a project will involve. Once a noise impact is identified, IDOT will evaluate feasible and reasonable noise abatement methods to reduce traffic noise impacts. Traffic noise can potentially be reduced by addressing the noise source, noise path, or noise receiver. The IDOT BDE manual includes specific guidance and procedures for determining the need for noise abatement evaluations and the types of mitigation strategies that are appropriate for a variety of situations. The manual also specifies coordination requirements with local government and public participation procedures.

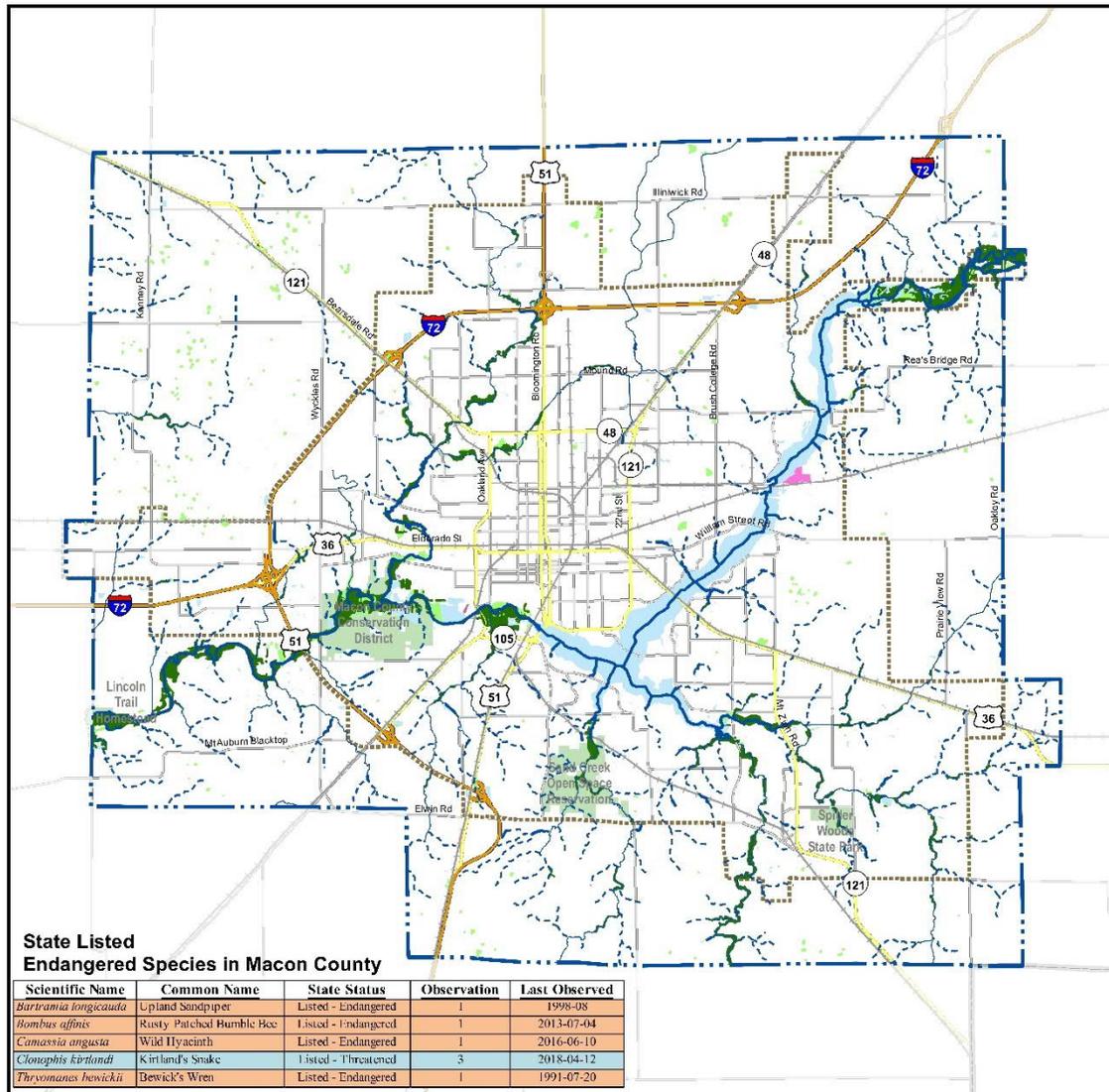
### Air Quality

All transportation plans, programs, and projects which are funded or approved under Title 23 USC must be determined to conform with State or Federal air implementation plans as required by the Clean Air Amendments of 1990 and subsequent federal regulations. Such implementation plans describe how air quality standards will be achieved in those areas of a State in which standards are being exceeded. The DUATS MPA is an attainment area and is in compliance with air quality standards and within the parameters of transportation-related pollutants.

## L RTP Environmental Mitigation Analysis

DUATS used available GIS layers and associated databases pertaining to environmentally sensitive and geographically significant areas to complete a high-level environmental mitigation analysis for the 2045 LRTP. The layers included natural resources, floodplains, and farmland maps (Figure 6-12, Figure 6-13, Figure 6-14).

Figure 6-12: Environmental Features – Natural Resources



**Legend**

- 20-Year MPA Boundary
- DUATS Urbanized Boundary
- Railroad
- Interstate
- Principal Arterial
- NHD Streams**
- Artificial Path Stream/River
- Perennial Stream/River
- Intermittent Stream/River
- Illinois Natural Areas Inventory
- Illinois Department of Natural Resources Site
- NWI Wetlands**
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond/Lake
- Riverine
- Other

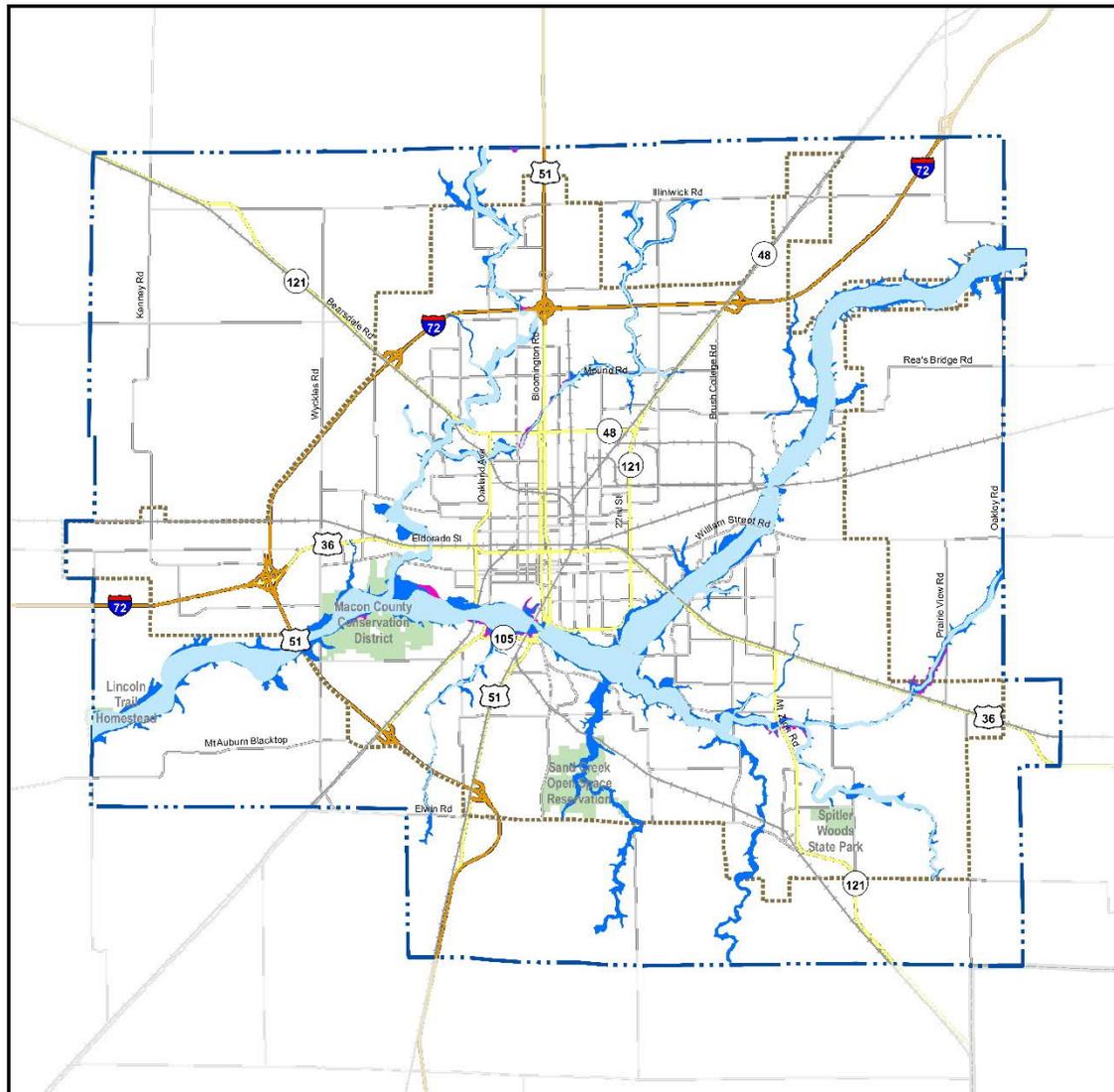


2.5

Miles

Data Sources: EPA EJ SCREEN, Illinois DNR, IDOT, US Census, Macon Co, DUATS  
 File: \\uschg1fs001\prod\Projects\60604788\1900\_CAD\_GIS\920\_GIS\MXD\ENV\_NaturalResources.mxd

Figure 6-13: Environmental Features – Floodplains



**Legend**

- 20-Year MPA Boundary
- DUATS Urbanized Boundary
- Railroad
- Interstate
- Principal Arterial
- Floodway
- 100-Year Floodplain
- 500-Year Floodplain

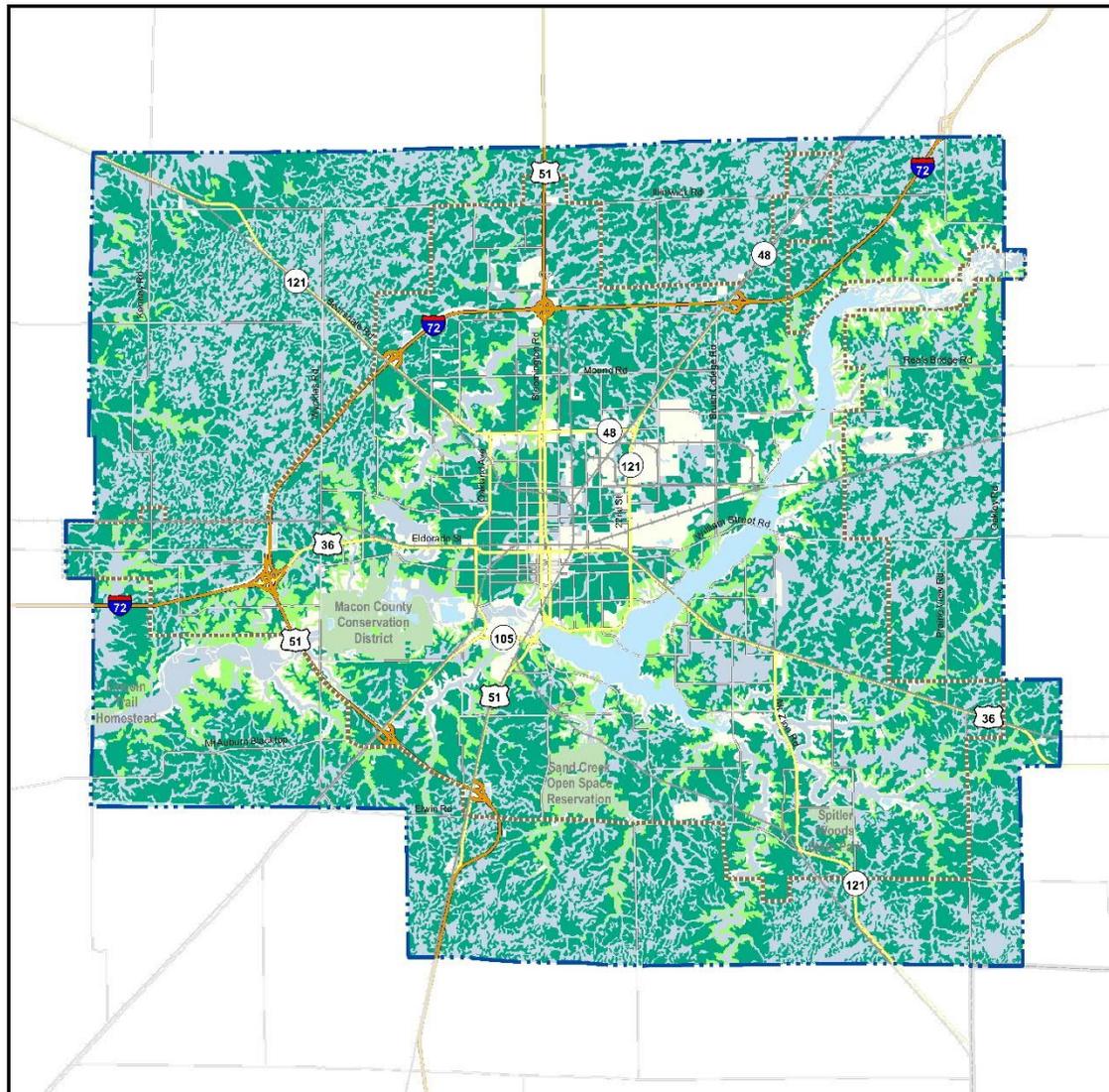


2.5

Miles

Data Sources: EPA EJ SCREEN, Illinois DNR, IDOT, US Census, Macon Co, DUATS  
 File: \\uschg1fs001\prod\Projects\60604788\1900\_CAD\_GIS\920\_GIS\MXDs\ENV\_Floodplains.mxd

Figure 6-14: Environmental Features – Farmland



**Legend**

-  20-Year MPA Boundary
-  DUATS Urbanized Boundary
-  Railroad
-  Interstate
-  Principal Arterial
-  All areas are prime farmland
-  Farmland of statewide importance
-  Prime farmland with conditions\*
-  Not prime farmland



2.5



Miles

Data Sources: NRCS Soil Survey, Illinois DNR, IDOT, US Census, Macon Co. DUATS  
 File: \\uschg1fs001\prod\Projects\60604788\1900\_CAD\_GIS\920\_GISMXDs\ENV\_Farmland.mxd

Comparing the environmental layers along with the fiscally constrained projects helps identify potential areas of concern and / or environmental incompatibility. For example, if a proposed road is on an alignment that crosses an environmentally sensitive area or a floodplain, DUATS would be able to identify this well in advance of a detailed study or engineering effort. As such, appropriate actions might be taken early in the process to avoid or mitigate potentially negative environmental impacts.

DUATS will continue to cooperate and coordinate planning activities with all applicable local, state, federal and quasi-public environmental resource agencies. Table 6-12 summarizes the potential environmental impacts on fiscally constrained IDOT projects and Table 6-13 summarizes the potential environmental impacts on fiscally constrained Macon County projects. Figure 6-15, Figure 6-16, and Figure 6-17 depict environmentally sensitive areas in the MPA in relationship to the fiscally constrained roadway/freight improvements.

It is important to note that this is not intended to be a detailed environmental analysis. Instead, the purpose of this process is to identify potential environmental issues early in the process. This analysis should be used as a starting point to help guide more detailed environmental analysis that will be required as these projects are designed and constructed.

Table 6-12: Fiscally Constrained Projects Resource Matrix (IDOT projects)

ID	Project (Approximate Limits) Refer to Figure 6-4 for project location.	Rivers/Streams (number)	Conservation Areas	Wetlands (approx. acres)	100-year Floodplain (number of crossings)	500-year Floodplain (number of crossings)	Historic Sites (number)	Historic Districts (number)	Prime Farmland (approx. acres)
1	US 36/ILL 121 - Resurfacing, ADA improvements and traffic signal modernization.	1	-	-	2	1	-	-	492
2	US 36 - Resurfacing, ADA improvements, structure repair and traffic signal modernization	-	-	-	-	-	Note 3	Note 4	239
3	I-72 - Bridge Joint replacement and repairs, deck repairs, and deck overlay	-	-	-	-	-	Note 5	Note 6	122
4	US 51 - Microsurfacing	2	Note 1	-	4	2	-	-	649
5	US 51 - Resurfacing and Bridge joint replacement	4	-	25	1	-	-	-	1,597
6	Old US 36 - Resurfacing	2	-	-	1	-	-	-	1,525
7	Old US Business 51 - Resurfacing, ADA improvements and bridge joint repair	2	-	29	4	2	-	-	317
8	ILL 121 - Resurfacing, ADA improvements	1	Note 2	-	3	2	-	-	851
9	Old US 51 Business - Resurfacing, ADA improvements	-	-	6	2	1	-	-	354
10	ILL 105 - Superstructure Replacement	1	-	225	2	1	-	-	85
11	US 36 - Resurfacing and bridge repair	1	-	-	-	-	-	-	350
12	US 36 - Resurfacing - 6.55 miles	1	-	-	1	2	-	-	980
13	Old US Business 51 - Resurfacing, Bridge joint replacement and bridge deck overlay	2	-	-	2	1	-	Note 7	565
14	I-72 - Interstate Resurfacing and ramp repair	4	-	-	1	-	-	-	1,011
15	US 51 - Resurfacing and ADA improvements	1	-	12	-	1	-	-	274
16	US 36 - Bridge Replacement	1	-	-	2	1	-	-	51
17	US 51 - Resurfacing	4	-	-	4	1	-	-	1,506
18	ILL 48 - Resurfacing and Culvert Replacement	6	-	30	2	-	-	-	2,041
19	ILL 105 - Resurfacing	1	-	4	2	1	-	-	1,105
20	ILL 121 - Resurfacing and ADA improvements	1	-	18	1	1	-	-	551

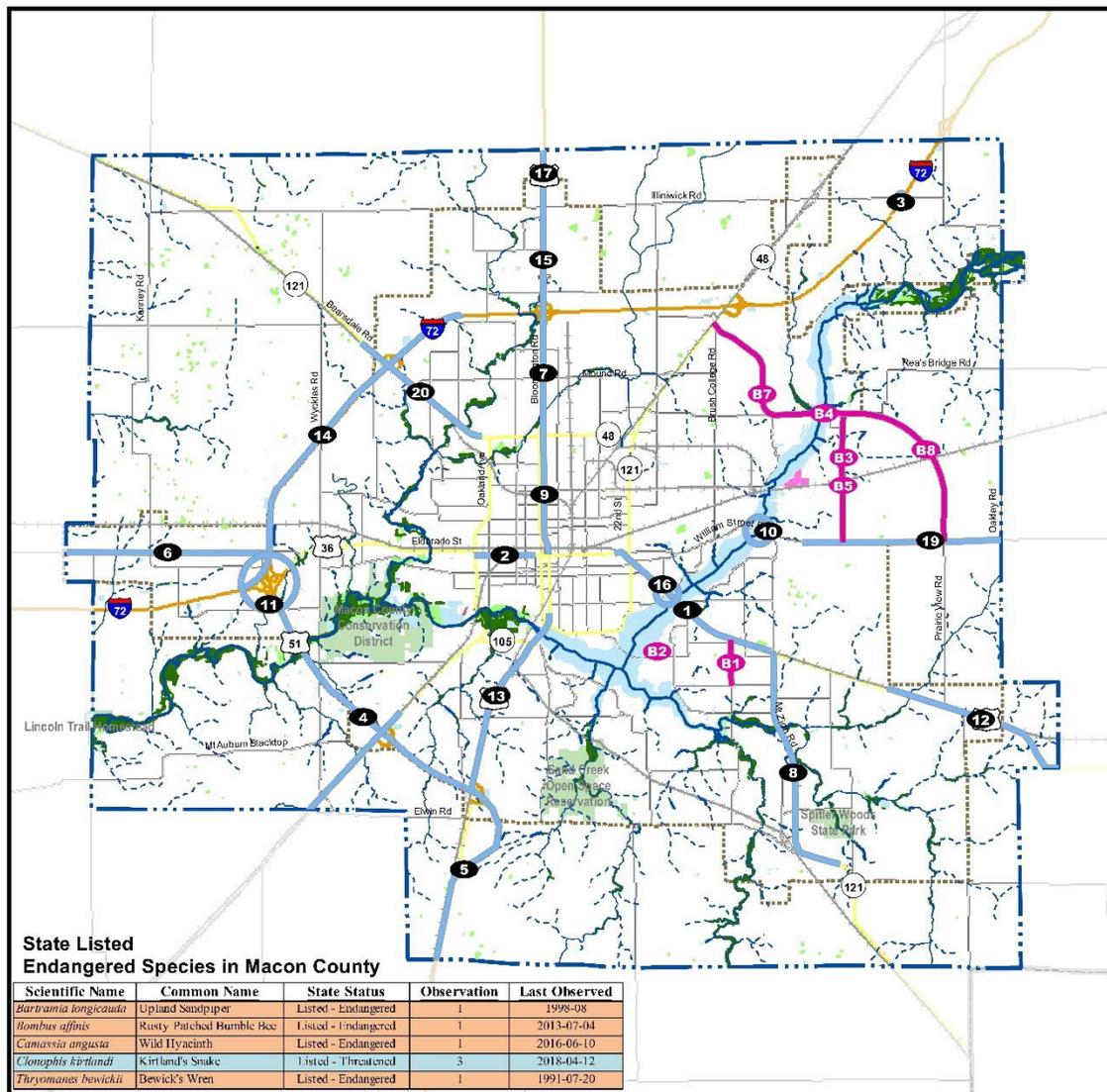
Source: AECOM (analysis of GIS data), 2019. NOTES: [1] Macon County Conservation District [2] Spitzer Woods State Park [3] Transfer House; James Millikin House [4] West End Historic District; Decatur Historic District; Decatur Downtown Historic District [5] Transfer House [6] Decatur Historic District; Decatur Downtown Historic District [7] Decatur Historic District.

Table 6-13: Fiscally Constrained Projects Resource Matrix (Macon County projects)

ID	Project (Approximate Limits) Refer to Figure 6-4 for project location.	Rivers/Streams (number)	Conservation Areas	Wetlands (approx. acres)	100-year Floodplain (number of crossings)	500-year Floodplain (number of crossings)	Historic Sites (number)	Historic Districts (number)	Prime Farmland (approx. acres)
B1	CH-7 Reconstruction	0	-	0	0	0	-	-	106
B2	CH-63 / Country Club Road Resurfacing	0	-	0	1	1	-	-	44
B3	CH-23 / Sangamon Road Curve Reconstruction	3	-	0	2	1	-	-	330
B4	Reas Bridge Road Bridge Replacement	1	-	0	1	2	-	-	52
B5	CH-23 /Sangamon Road Resurfacing	0	-	0	0	0	-	-	77
B7	Beltway (Phase 1 – Lake Decatur to ILL 48)	1	-	0	3	1	-	-	478
B8	Beltway (Phase 1 – ILL 105 to Lake Decatur)	0	-	0	1	0	-	-	479

Source: AECOM (analysis of GIS data), 2019.

Figure 6-15: Fiscally Constrained Projects (with Natural Resources)



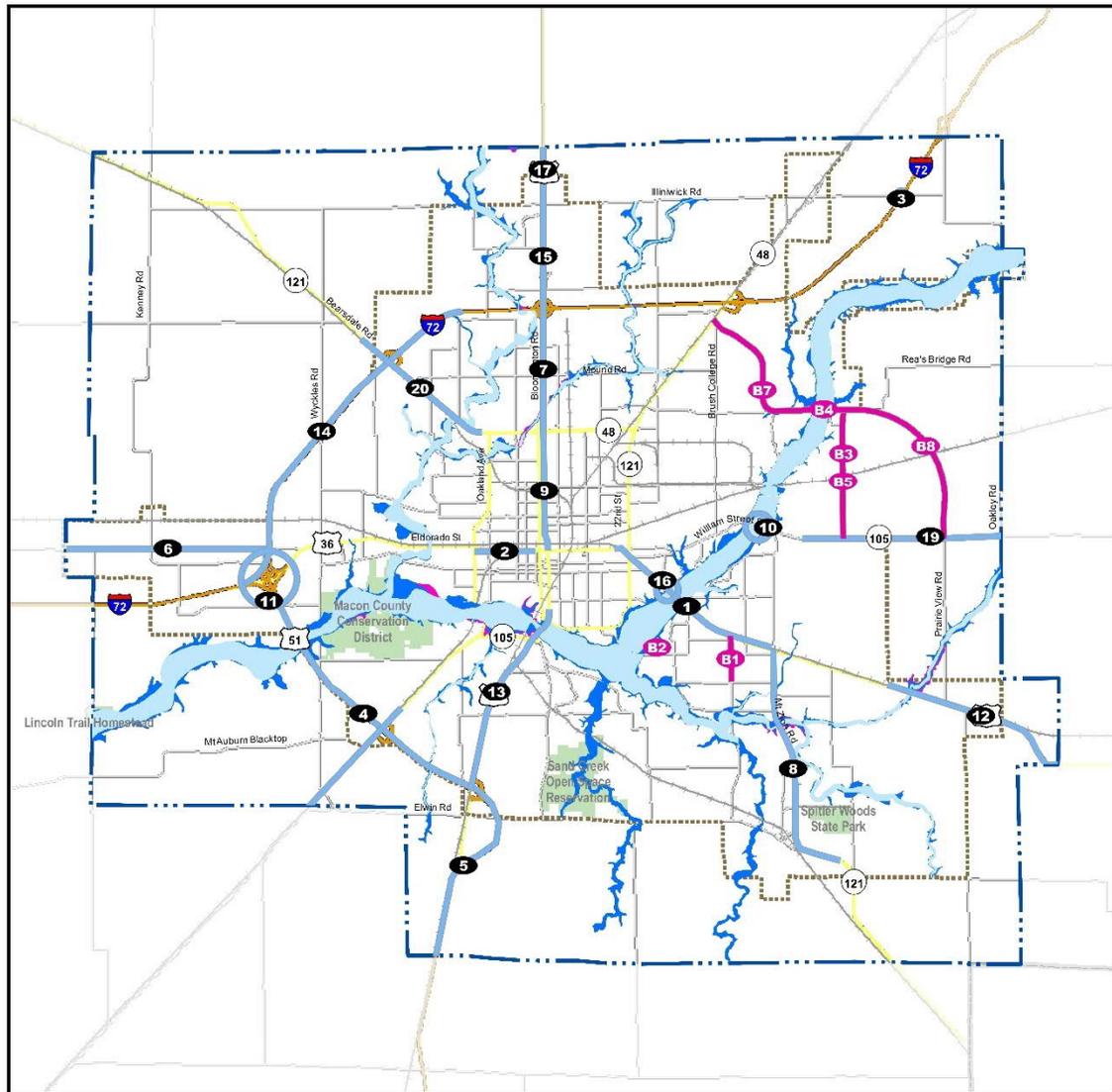
**Legend**

- 20-Year MPA Boundary
- DUATS Urbanized Boundary
- Railroad
- Interstate
- Principal Arterial
- Fiscally Committed Macon County Project
- Fiscally Committed IDOT Project
- Artificial Path Stream/River
- Perennial Stream/River
- Intermittent Stream/River
- Illinois Natural Areas
- Illinois Department of Natural Resources Site
- NWI Wetlands**
  - Freshwater Emergent Wetland
  - Freshwater Forested/Shrub Wetland
  - Freshwater Pond/Lake
  - Riverine
  - Other



Data Sources: EPA EJ SCREEN, Illinois DNR, IDOT, US Census, Macon Co, DUATS  
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Figure 6-16: Fiscally Constrained Projects (with Floodplains)



**Legend**

-  20-Year MPA Boundary
-  DUATS Urbanized Boundary
-  Railroad
-  Interstate
-  Principal Arterial
-  Fiscally Committed Macon County Project
-  Fiscally Committed IDOT Project
-  Floodway
-  100-Year Floodplain
-  500-Year Floodplain

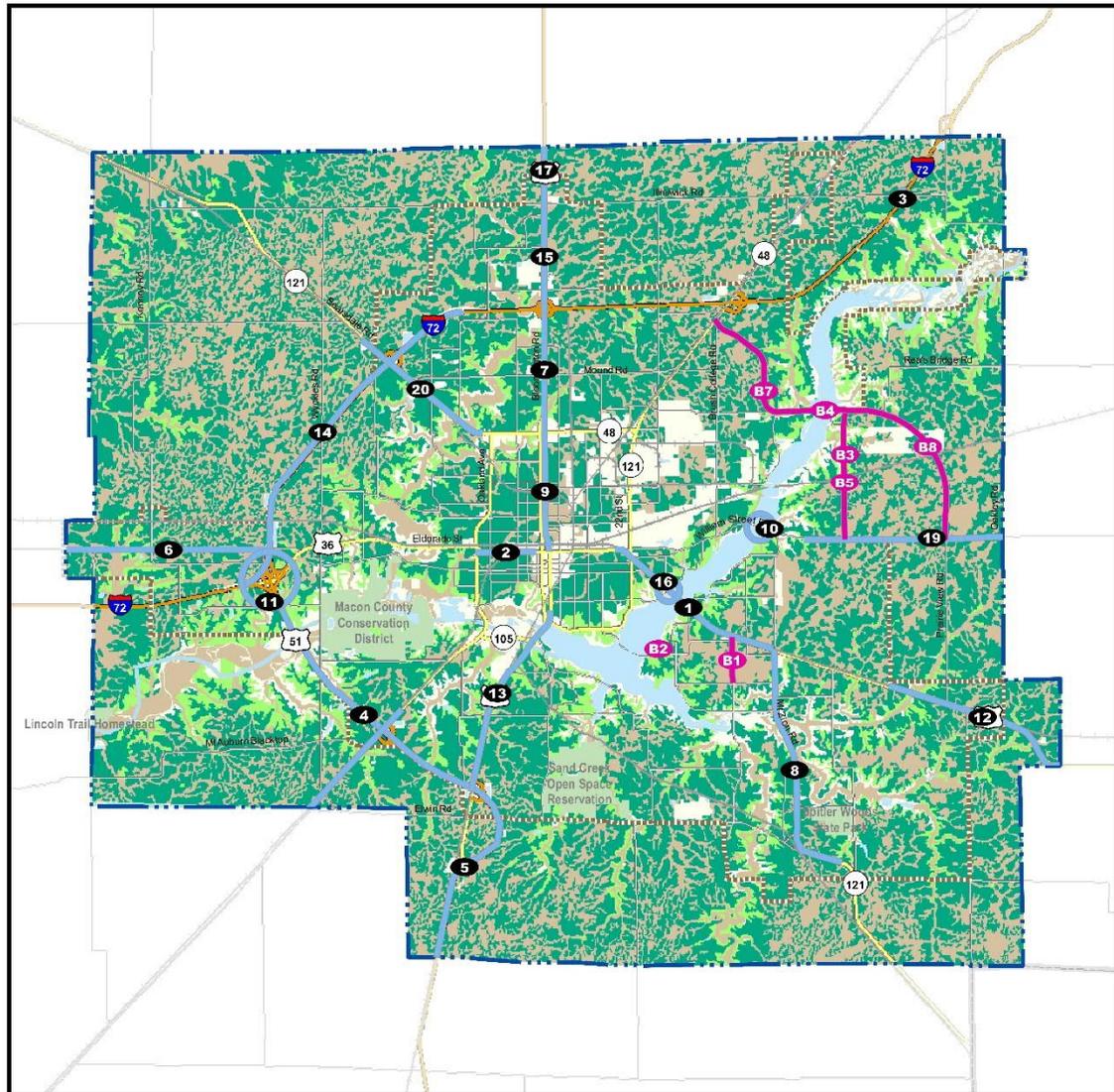


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Miles

Data Sources: EPA EJ SCREEN, Illinois DNR, IDOT, US Census, Macon Co, DUATS  
 File: \\uschg1fs001\prod\Projects\60604788\1900\_CAD\_GIS\920\_GIS\MXDs\ENV\_FC\_Floodplains.mxd

Figure 6-17: Fiscally Constrained Projects (with Farmland)



**Legend**

20-Year MPA Boundary	All areas are prime farmland	
DUATS Urbanized Boundary	Farmland of statewide importance	
Railroad	Prime farmland with conditions*	
Interstate	Not prime farmland	
Principal Arterial		
Fiscally Committed IDOT Project		
Fiscally Committed Macon County Project		

Data Sources: NRCS Soil Survey, Illinois DNR, IDOT, US Census, Macon Co. DUATS  
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### Potential Mitigation Activities

IDOT strives to reduce the negative impacts of highway construction and rehabilitation projects by requiring contractors to adhere to related provisions in their Standard Specifications for Road and Bridge Construction. This document includes specific requirements related to the environment: the protection of existing plant material, removal of waste, and temporary erosion control.

In addition to these general provisions, some highway projects also include additional construction mitigation requirements which are consistent with the location and magnitude of the project, the types of impacted resources, and other project specific issues. DUATS supports monitoring construction activities and instituting control programs on major construction projects. These efforts focus on the following actions:

- ▶ [Controlling Construction Dust](#) | Watering, street sweeping, and chemical dust suppressants;
- ▶ [Reducing Diesel Emissions](#) | Emission control devices, cleaner fuels and idling restrictions;
- ▶ [Controlling Erosion and Sedimentation](#) | Special equipment and procedures; and
- ▶ [Reducing Noise and Vibration](#) | Special drilling techniques and low-impact hammers.

## ENVIRONMENTAL JUSTICE ANALYSIS

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Environmental Justice (EJ) is a federal policy that requires agencies receiving federal funds to set up processes that consider impacts of plans, projects, and activities on minority and low-income populations. FHWA and FTA establish policy guidelines that focus on the following:

- ▶ **Limited Effects** | Avoid, minimize, or mitigate disproportionately high and adverse effects on human health and the local environment. This includes social and economic effects on minority and low-income populations;
- ▶ **Inclusion** | Ensure that all communities that would potentially be affected by the transportation decision-making process have the opportunity to participate and be represented; and
- ▶ **Guarantee of Benefits** | Prevent the denial, reduction, or significant delay of the receipt of benefits to minority and low-income population.

FHWA and FTA require environmental justice considerations in compliance with Title VI of the Civil Rights Act of 1964 which:

“...prohibits discrimination by recipients of Federal financial assistance on the basis of race, color, and national origin, including matters related to language access for limited English proficient (LEP) persons. Under DOT’s Title VI regulations, as a recipient of DOT financial assistance, you are prohibited from, among other things, using ‘criteria or methods of administering your program which have the effect of subjecting individuals to discrimination based on their race, color, or national origin.’ For example, neutral policies or practices that result in discriminatory effects or disparate impacts violate DOT’s Title VI regulations, unless you can show the policies or practices are justified and there is no less discriminatory alternative. In addition, Title VI and DOT regulations prohibit you from intentionally discriminating against people on the basis of race, color, and national origin.”

### Minority Population

Minority population is defined as any identifiable group of minority persons who live in geographic proximity. Additionally, minority populations can include geographically dispersed or transient persons who would be similarly affected by a proposed transportation improvement. Minority persons include those who are American Indian, Alaska Native, Asian, Black or African American, Hispanic or Latino, and Native Hawaiian and other Pacific Islander. For the purpose of the EJ analysis, a census tract with a minority population of 23 percent or greater is defined as an EJ area as this percentage would exceed the Macon County minority population average.

The non-Caucasian population of the MPA is primarily concentrated in the central part of Decatur, extending north from Lake Decatur to East Garfield Avenue, between Oakland Avenue and 22<sup>nd</sup> Street. Minorities in this general area account for 50 to 75 percent of the population. Another area exceeding 50 percent is located in the north/northeast portion of Decatur, north of Garfield Avenue to I-72 roughly between US-51 and Brush College Road. Figure 6-18 displays the minority population within the DUATS MPA,

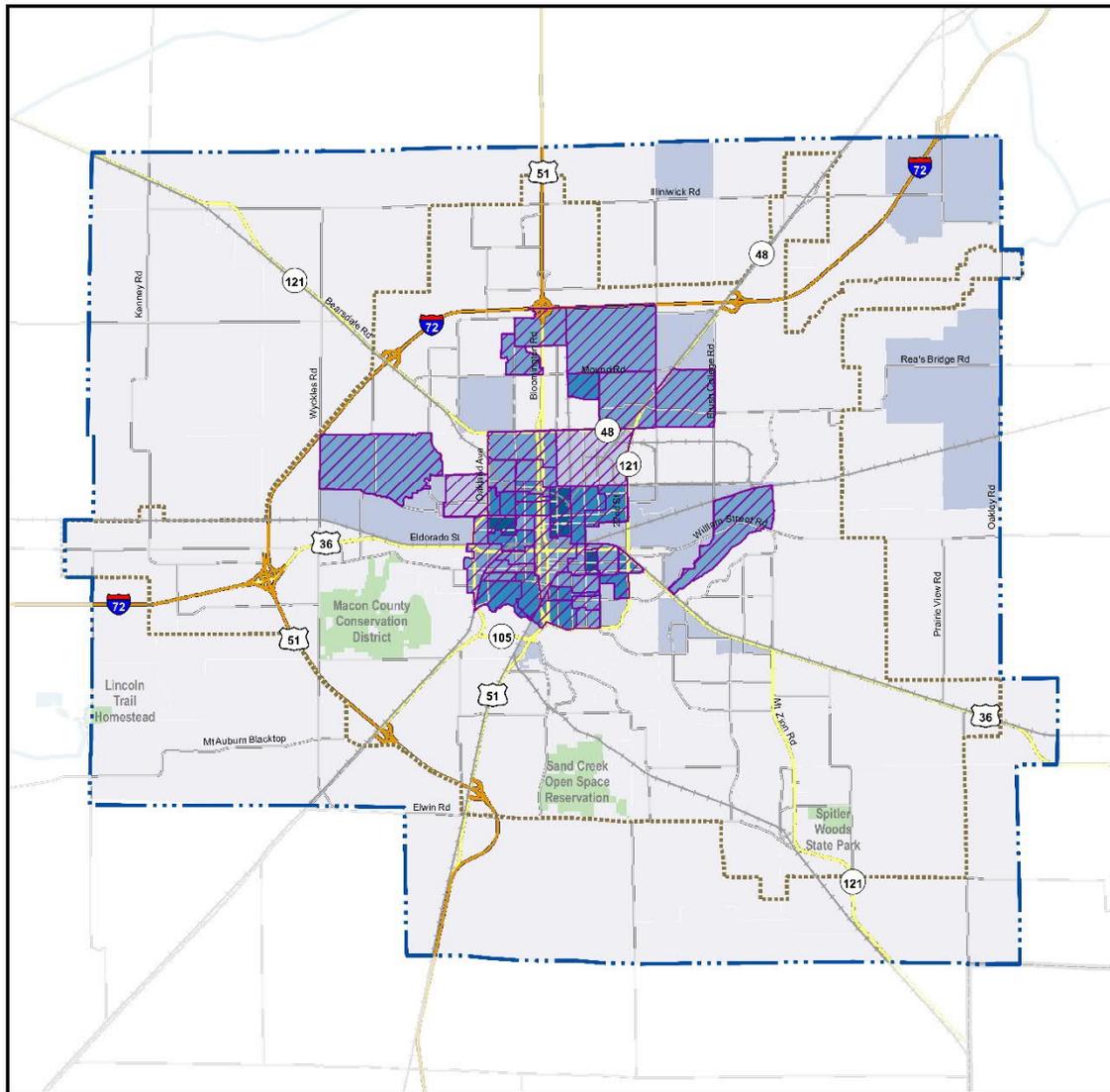
### Low-Income Population

Low-income population was identified using the percentage of households with income levels below the poverty line. Census tracts having greater than 36 percent of households below the

poverty line were identified as an EJ area. The low-income population of the MPA is also highly concentrated in the central part of Decatur, and includes the same geographic boundaries described in the minority population. Figure 6-19 displays the low-income population.

Figure 6-20 displays the defined EJ areas, which include the previously defined minority and low-income populations.

Figure 6-18: Minority Population



**Legend**

- 20-Year MPA Boundary
- DUATS Urbanized Boundary
- Railroad
- Interstate
- Principal Arterial
- Minority Population Greater than Macon County Average of 23%

**% Minority**

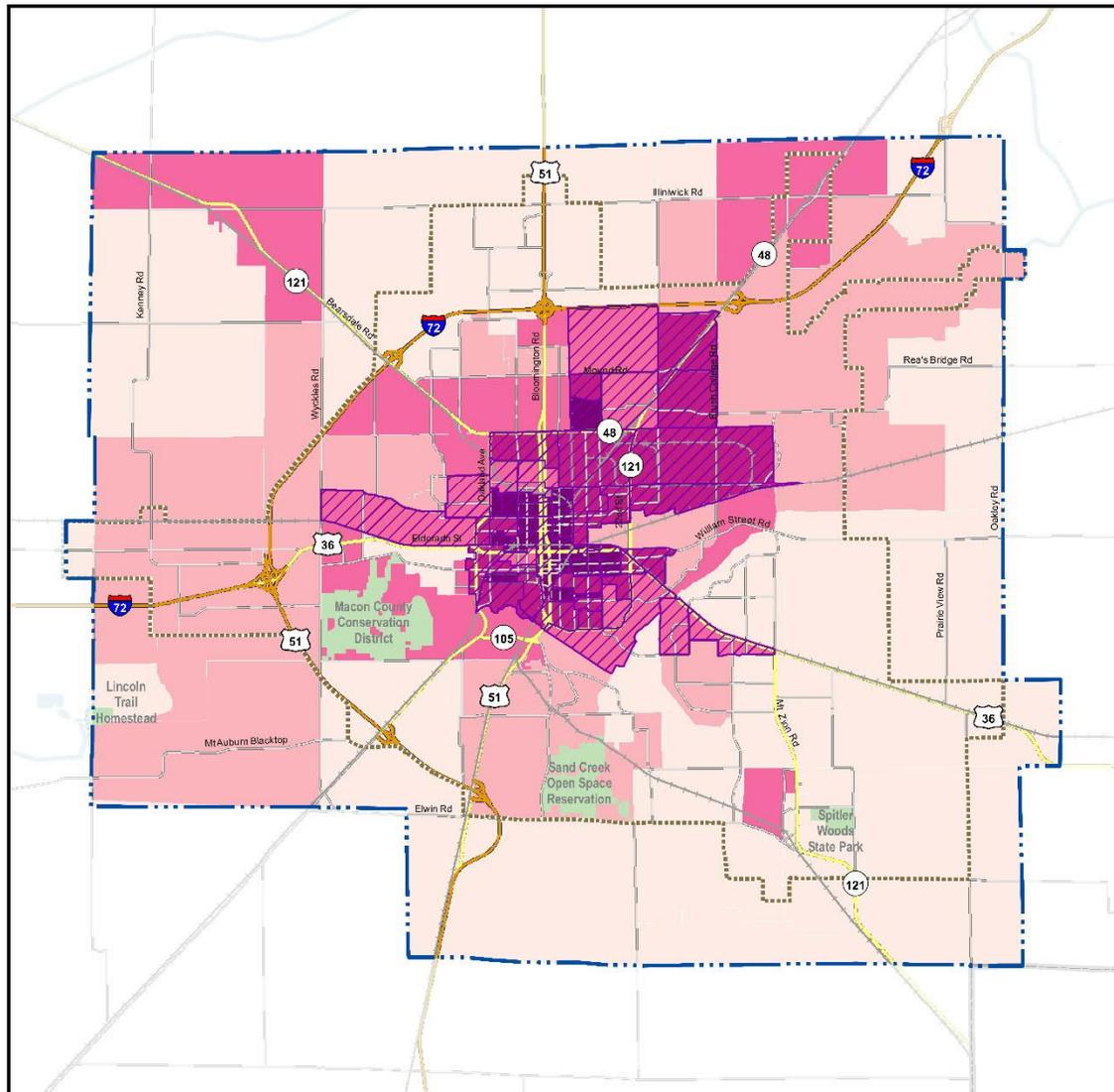
- 0% - 15%
- 16% - 25%
- 26% - 50%
- 51% - 75%
- 76% - 100%



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Miles

Data Sources: EPA EJ SCREEN, Illinois DNR, IDOT, US Census, Macon Co, DUATS  
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Figure 6-19: Low Income Population



**Legend**

- 20-Year MPA Boundary
  - DUATS Urbanized Boundary
  - Railroad
  - Interstate
  - Principal Arterial
  - Low Income Population Greater than Macon County Average of 36%
- % Low Income**
- 0% - 15%
  - 16% - 25%
  - 26% - 50%
  - 51% - 75%
  - 76% - 100%

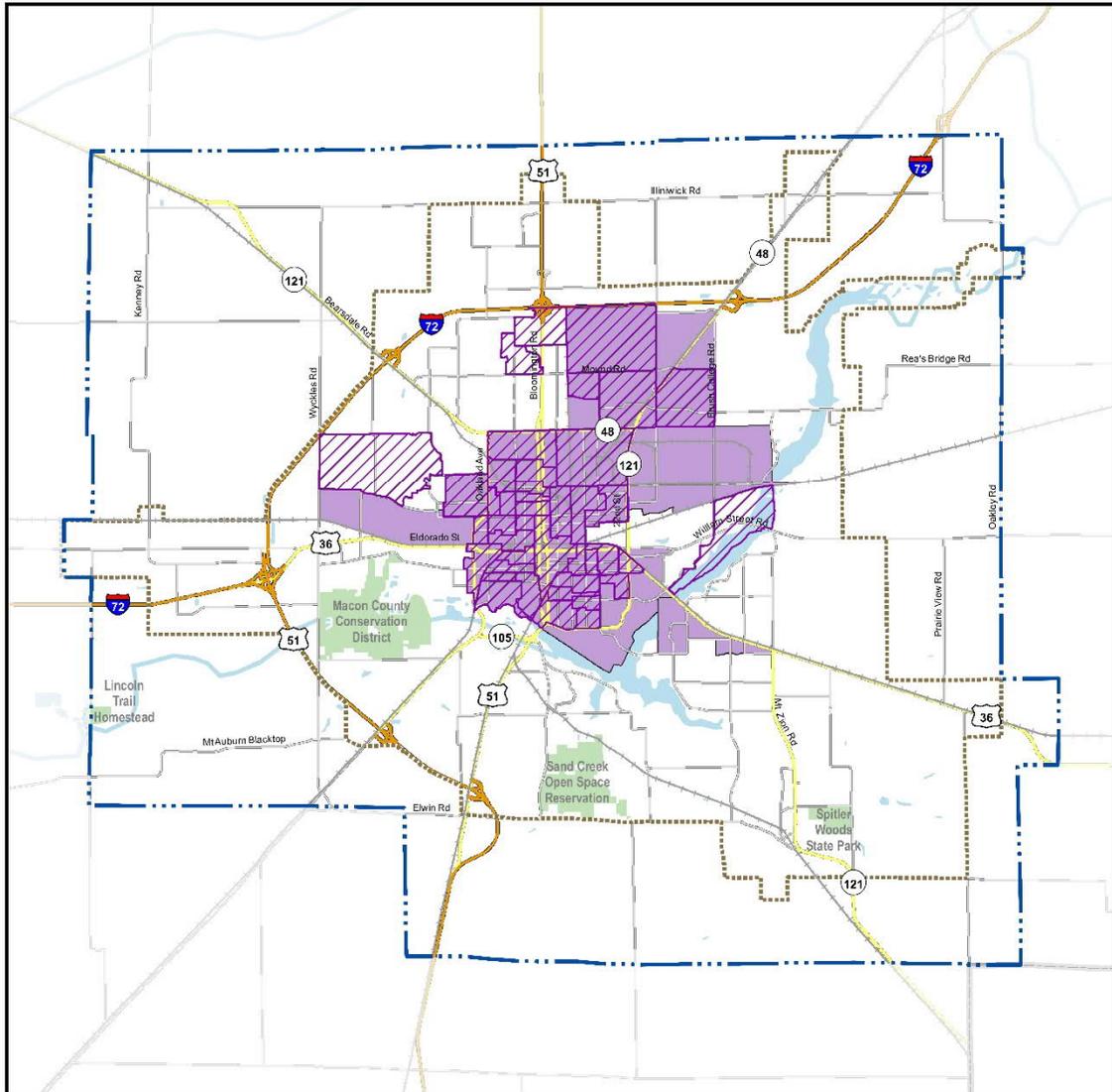


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Miles

Data Sources: EPA EJ SCREEN, Illinois DNR, IDOT, US Census, Macon Co, DUATS  
 File: \\usohg1fs001\prod\Projects\60604788\1900\_CAD\_GIS\B20\_GIS\MXDs\LowIncome\_Population.mxd

Figure 6-20: DUATS Environmental Justice Areas



**Legend**

- 20-Year MPA Boundary
- DUATS Urbanized Boundary
- Railroad
- Interstate
- Principal Arterial
- Low Income Population Greater than Macon County Average of 36%
- Minority Population Greater than Macon County Average of 23%



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Miles

Data Sources: EPA EJ SCREEN, Illinois DNR, IDOT, US Census, Macon Co, DUATS  
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## Environmental Justice Analysis

An analysis of the fiscally constrained projects and EJ areas was conducted to identify potentially adverse impacts on low-income and minority populations within the DUATS MPA. Figure 6-21 displays the distribution of the fiscally constrained roadway/freight projects in relation to the EJ areas. Figure 6-22 displays the current fixed-route transit service coverage in relation to the EJ areas. Table 6-14 summarizes the Fiscally Constrained Projects in relationship to the defined EJ areas.

### EJ Analysis of Fiscally Constrained Projects

The EJ analysis of the 2045 LRTP projects highlights the potential for transportation investments to enhance EJ areas within the DUATS MPA. The following discusses the potential impacts.

- ▶ **Roadway/Freight** | The majority of projects are located outside of the defined EJ areas. However, this does not mean that these projects will not benefit EJ population. The LRTP projects address the DUATS 2045 LRTP goals and objectives, including one of the primary objectives of spurring economic development within the region and ultimately creating sustainable jobs.

To a large extent, a vast majority of LRTP projects focus on the on-going maintenance improvements focused on preserving the existing roadway network.

Furthermore, a significant number of the roadway/freight priorities are not fiscally constrained and are therefore not included in this EJ analysis.

- ▶ **Transit Service** | A review of the transit service area shows that the EJ areas are well covered by the existing fixed-route service. The LRTP has not identified the need to expand service coverage; however, the COA study which will take place in 2020 provides a good opportunity to further evaluate mobility needs in relationship to the EJ areas.

Long-range projects, such as adding intercity bus service to the Decatur region, would also benefit the DUATS EJ populations by providing a low-cost travel option. As a long-term transit improvement, the DUATS LRTP supports the continued pursuit of bringing high-speed passenger rail service to the Decatur region.

### Conclusion

A review of the 2045 LRTP projects, in comparison to the EJ areas, demonstrates what DUATS believes are no negative EJ issues associated with the proposed roadway/freight and transit operations. In fact, the LRTP roadway/freight projects, while not all located directly within an EJ area, support the overall 2045 LRTP goals and ultimately would benefit EJ communities by creating new job opportunities within the region. The current transit coverage provides service to the EJ population most in need of public transportation. In fact, DPTS estimates over 90 percent of current transit riders do not have a driver's license and/or access to an automobile. As such, transit is a critical mode of transportation within the DUATS MPA. Furthermore, DPTS will conduct a COA in 2020 that will evaluate ways to potentially increase service efficiency, including opportunities to rethink how transit functions in the region to address changing mobility needs. Finally, a potential improvement that is not reflected on an EJ map is the potential implementation of later evening service. This would help connect area residents with 2<sup>nd</sup> and 3<sup>rd</sup> shift jobs that currently may not be reached as they fall outside regular transit operating hours.

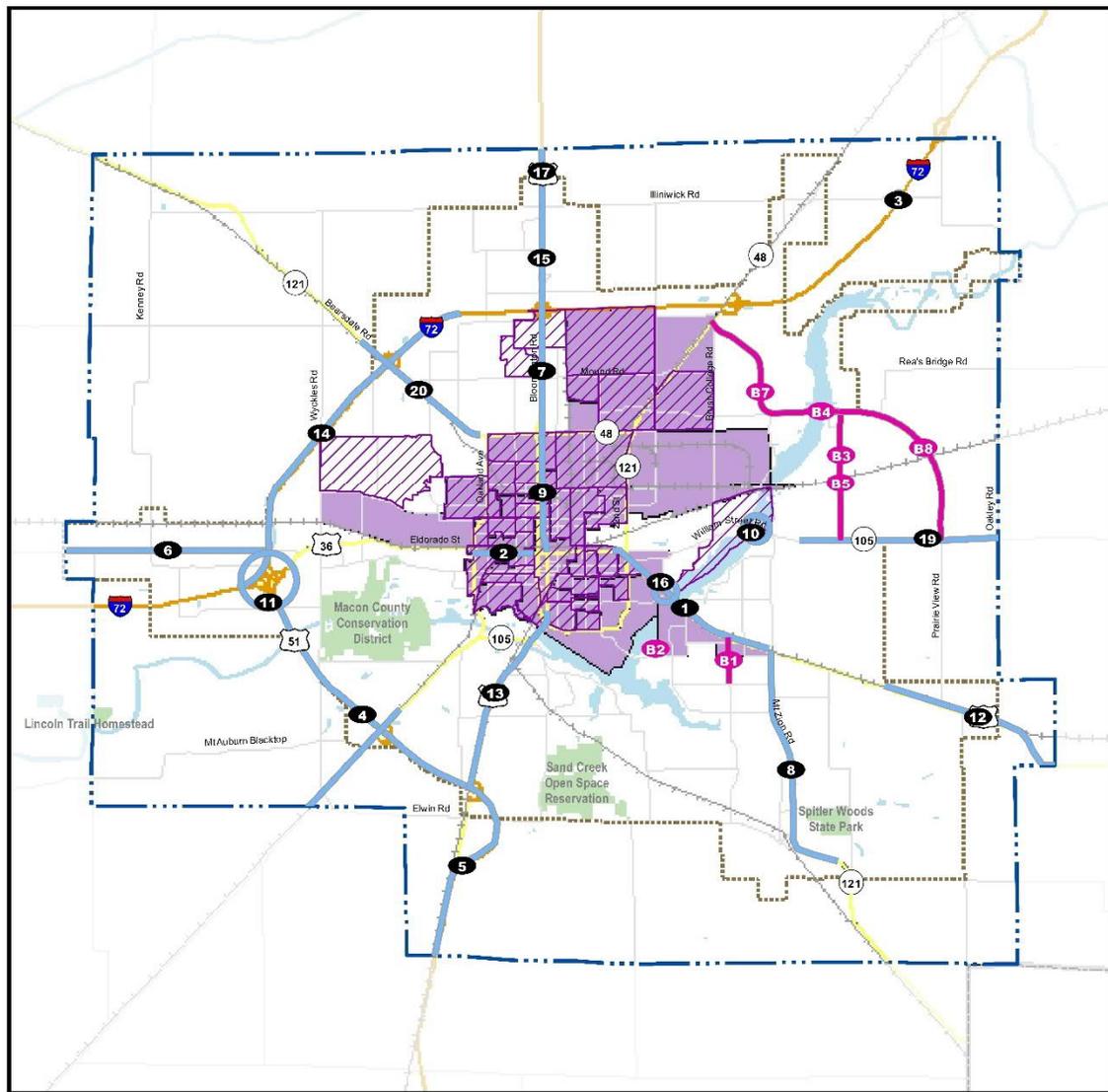
Table 6-14: Fiscally Constrained Projects (within EJ Areas)

Project (Approximate Limits) IDOT Projects (1 to 20); Macon County (B1 to B5, B7 and B8) ID Refer to Figure 6-4 for project location.	Minority EJ Area	Low-Income EJ Area
1 US 36/ILL 121 - Resurfacing, ADA improvements and traffic signal modernization.	◆	
2 US 36 - Resurfacing, ADA improvements, structure repair and traffic signal modernization	◆	◆
3 I-72 - Bridge Joint replacement and repairs, deck repairs, and deck overlay		
4 US 51 - Microsurfacing		
5 US 51 - Resurfacing and Bridge joint replacement		
6 Old US 36 - Resurfacing		
7 Old US Business 51 - Resurfacing, ADA improvements and bridge joint repair		◆
8 ILL 121 - Resurfacing, ADA improvements	◆	
9 Old US 51 Business - Resurfacing, ADA improvements	◆	◆
10 ILL 105 - Superstructure Replacement		◆
11 US 36 - Resurfacing and bridge repair		
12 US 36 - Resurfacing - 6.55 miles		
13 Old US Business 51 - Resurfacing, Bridge joint replacement and bridge deck overlay	◆	◆
14 I-72 - Interstate Resurfacing and ramp repair		◆
15 US 51 - Resurfacing and ADA improvements		◆
16 US 36 - Bridge Replacement	◆	
17 US 51 - Resurfacing		
18 ILL 48 - Resurfacing and Culvert Replacement		
19 ILL 105 - Resurfacing		
20 ILL 121 - Resurfacing and ADA improvements	◆	◆
B1 CH-7 Reconstruction		
B2 CH-63 / Country Club Road Resurfacing		
B3 CH-23 / Sangamon Road Curve Reconstruction		
B4 Reas Bridge Road Bridge Replacement		
B5 CH-23 /Sangamon Road Resurfacing		
B7 Beltway (Phase 1 – Lake Decatur to ILL 48)		
B8 Beltway (Phase 1 – ILL 105 to Lake Decatur)		

Source: AECOM; U.S. Census Data.

◆ Entire project, or majority of project, within EJ area. ◆ Portion of project within EJ area. ◆ Project in proximity to EJ area (within a quarter-mile).

Figure 6-21: Environmental Justice Areas with Fiscally Constrained Projects



**Legend**

-  20-Year MPA Boundary
-  DUATS Urbanized Boundary
-  Railroad
-  Interstate
-  Principal Arterial
-  Fiscally Committed IDOT Project
-  Fiscally Committed Macon County Project
-  Low Income Population Greater than Macon County Average of 38%
-  Minority Population Greater than Macon County Average of 23%

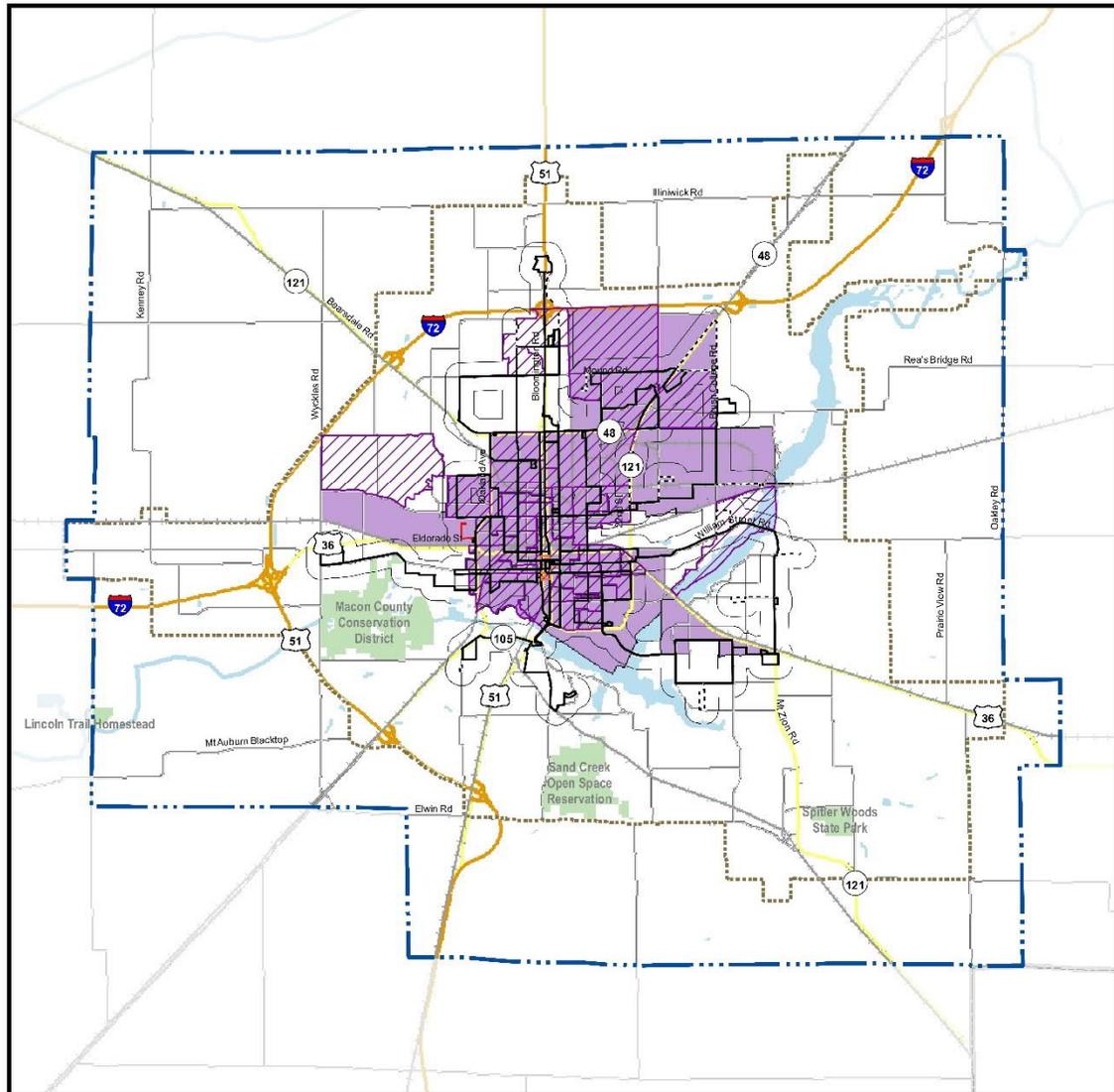


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Miles

Data Sources: EPA EJ SCREEN, Illinois DNR, IDOT, US Census, Macon Co. DUATS  
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Figure 6-22: Environmental Justice Areas (with Fixed-Route Transit)



**Legend**

- 20-Year MPA Boundary
- DUATS Urbanized Boundary
- Railroad
- Interstate
- Principal Arterial
- Transit Route
- Sup. Service
- Trolley
- MacArthur
- 1/4 Mile Buffer Transit Route
- Low Income Population Greater than Macon County Average of 36%
- Minority Population Greater than Macon County Average of 23%



2.5

Miles

Data Sources: EPA EJ SCREEN, Illinois DNR, IDOT, US Census, Macon Co, DUATS  
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