Janesville Area
2015-2050 Long Range Transportation Plan

Street & Highway Section

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1. INTRODUCTION AND PURPOSE

The Streets and Highways section of the Janesville Area *2015-2050 Long Range Transportation Plan* (LRTP) is an update to the most recent plan, the *2005-2035 Long Range Transportation Plan*. In an attempt to support and maintain the highest possible level of personal mobility, the Streets and Highways section evaluates the existing traffic circulation system, analyzes the street systems current and projected deficiencies, and identifies short and long-range improvement projects.

This section not only identifies projects anticipating state and federal funding, it also identifies local street connections consistent with area land use plans. While these local connections are likely to be funded by local sources, and therefore not included in the fiscally constrained tables in the Plan, they represent important connections for the overall transportation system.

2. GOAL AND OBJECTIVES

The goal and objectives for highway planning in the Janesville Planning Area coincide with the goal and objectives listed in the introduction. The objectives specifically pertaining to highway transportation are summarized below:

Goal: To develop and maintain an increasingly energy efficient transportation system which includes and integrates all modes of travel and provides for the safe and effective movement of people and goods, while optimizing the financial resources of the community.

Objective: By utilizing existing transportation facilities and services to their full potential.

Objective: By providing expanded facilities and services in accordance with the present and future demand to accommodate travel by auto, truck, bus, air, rail, bicycle, and foot with the intent of creating a balanced, coordinated, and efficient transportation system.

Objective: By properly maintaining and preserving the existing transportation system in order to increase safety and maximize the life of the investment.

Objective: By minimizing the loss and damage to persons and property due to transportation related crashes.

Objective: By developing and implementing programs which would lessen peak hour traffic congestion.

Objective: By reducing injuries and fatalities in all transportation modes.

Objective: By providing adequate intermodal connections within the transportation system.

Objective: By supporting the agricultural economy through the protection of agricultural lands, while maintaining an adequate road network to transport product to market.

Objective: By designing future street and highway improvements which are compatible with existing land uses, and which complement the land use plan.

3. EXISTING CONDITIONS

MILEAGE OF THE SYSTEM

Each of the MPO member jurisdictions has responsibility for the construction and upkeep of streets and highways mileage within their respective jurisdiction. Some mileage of the system is maintained through coordination of multiple jurisdictions. For example, the City of Janesville performs minor maintenance of state connecting highways but the State of Wisconsin is responsible for major rehabilitation and reconstruction.

There are approximately 720 miles of roadway within the MPO boundary but only the cities of Janesville and Milton and the Town of Harmony are completely contained within the planning boundary. All of the other participant jurisdictions maintain mileage both inside and outside the MPO boundary. Many of the transportation issues described in this Plan, such as maintenance and funding, go beyond the MPO boundary. Several available data measures for tracking transportation performance are at the whole jurisdiction level for Rock County and the townships. Table 1 shows the total number of miles each MPO member jurisdiction is responsible for.

Table 1: JURISDICTIONAL MILES

City of Janesville	332
City of Milton	32
Town of Harmony	49
Town of Janesville	50
Town of LaPrairie	43
Town of Milton	51
Town of Rock	51
Rock County	212
Total	821

Source: WisDOT WISLR

CLASSIFICATION SYSTEM

A hierarchical system of urban streets and rural roads serves the Janesville planning area. A roadway is classified according to its function, population served, the type of surrounding land uses, average daily traffic volumes, and whether its primary purpose is to provide mobility or access. Streets with a high classification, such as interstates or principal arterials, primarily serve through trips or cross-town movement. These routes are often designated as limited access roadways, carrying the areas highest levels of traffic. Intermediate classifications, such as minor arterials or collectors, provide connections between principal arterials and local streets. Local streets serve adjoining lands and function primarily as access routes to and from residential neighborhoods to higher density commercial and industrial land uses. The role of mobility and land access in the classification system are illustrated in Table 2.

Table 2: FUNCTIONAL CLASSIFICATION

Classification	Typical Land Access	Personal Mobility
Principal Arterials	No direct access to property	Highest
Minor Arterials	Limited access to property.	High
Collectors	Common Access to property.	Moderate
Local Roads	Unrestricted access to property	Low

Rural principal and minor arterials provide connections within the region and throughout the state, necessitating their development on a statewide level. Similarly, because of the nature of rural major and minor collectors, which provide routes for inter-county and intra-county travel, these types of roads must be developed on a countywide basis.

National Functional Classification System

The functional classification system is the process by which roadways are grouped into categories according to the type of trips served, traffic volumes, and the types of traffic generators they provide access to. WisDOT's criteria, which are based on FHWA's standards, are listed in the Facilities Development Manual[1].

Rural Street Classification System

The rural functional classification system consists of routes that connect communities within the state. The criteria of rural road classification are the population served, surrounding land use, distance between road types, and average daily traffic (ADT). The items considered in classifying rural roads are shown in Table 3 through Table 5.

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[1] www.wisconsindot.gov

Table 3: RURAL ARTERIAL ROAD CLASSIFICATION

Design Criteria For Rural State Trunk Highways
Functionally Classified As Arterials **(Level Terrain)**

Traffic Volume		Roadway Width Dimensions				Bridges	
Design Class	Design AADT	Design Speed (mph)	Traveled Way Width (feet)	Shoulder Width (feet)	Roadway Width (feet)	Minimum Design Loading	Clear Roadway Width of Bridges (feet)
A1	Under 3500	60	24	6	36	HS20	36
A2 (2 lanes)	3,500–8,700 3,500–15,000	60	24	10 (8)	44 (40)	HS20	44 (40)
A3 (4 lane divided)	8,700 - 44,000 8,700 - 53,500 15,000 - 60,000	70	2 at 24	6LT (4) 10RT	2 at 40 (38)	HS20	2 at 40
A3 (6 lane divided)	44,000 - 69,000 53,500 - 85,000 60,000 - 90,000	70	2 at 36	10 LT and RT	2 at 56	HS20	2 at 56

Source: Functional Classification Criteria, Wisconsin Department of Transportation; Facilities Development Manual

Table 4: RURAL COLLECTOR ROAD CLASSIFICATIONS

Design Criteria For Rural State Trunk Highways
Functionally Classified As Collectors **(Level Terrain)**

Traffic Volume			Roadway Width Dimensions					Bridges	
Design Class	Current ADT	Design ADT	Design Speed (mph)	Traveled Way Width Based On Design Speed (feet)		Shoulder Width (feet)	Roadway Width Based On Design Speed (feet)		Min. Design Loading	Clear Roadway Width of Bridges
				50 mph or less	55 mph or greater		50 mph or less	55 mph or greater		
C1	0-400		60 (40)	22-24 (20)	22-24	2-4	26-32 (24)	26-32	HS 20	26-30
C2	401-750	Under 1500	60 (50)	22-24	22-24	6 (5)	34-36 (32)	34-36 (32)	HS 20	28-30
C3		1500-2000	60 (50)	24 (22)	24	6	36 (34)	36	HS 20	32-34
		2000-3500	60		24	6		36	HS 20	36
C4		Over 3500	60		24	8		40	HS 20	40

Source: Functional Classification Criteria, Wisconsin Department of Transportation; Facilities Development Manual

Table 5: RURAL LOCAL ROAD CLASSIFICATION

Design Criteria For Rural State Trunk Highways
Functionally Classified As Local Roads **(Level Terrain)**

Traffic Volume			Roadway width Dimensions							Bridges		
Design Class	Current ADT	Design ADT	Design Speed (mph)	Traveled Way Width Based On Design Speed (feet)			Shoulder Width (feet)	Roadway Width Based On Design Speed (feet)			Design Load	Clear Roadway Width of Bridges Based on Design Speed (feet)	
				40 mph or less	45-50 mph	55 mph or more		40 mph or less	45-50 mph	55 mph or more		50 mph or less	55 mph or more
L1	0-250		60 (30)	20-22 (18)	20-22	22	2-4	24-26 (22)	24-26	26	HS20	24-28	26-28
L2	250-400		60 (40)	22 (18)	22 (20)	22	2-4	26-30 (22)	26-30 (24)	26-30	HS20	26-30	26-30
L3	400-750	Under 1500	60 (50)		22-24	22-24	6 (5)		34-36 (32)	34-36 (32)	HS20	28-30	28-30
L4		1500-2000	60 (50)		24 (22)	24	6		36 (34)	36	HS20	30-34	30-34
		2000-3500			24	24	6		36	36	HS20	36	36
L5		Over 3500	60 (50)		24	24	8			40	HS20	40	40

Source: Functional Classification Criteria, Wisconsin Department of Transportation; Facilities Development Manual

Rural Principal Arterials: Principal arterials provide interregional connections. These routes generally serve urban populations or greater (populations 5,000 and over).

Rural Minor Arterials: Minor arterials work in conjunction with principal arterials to serve moderate to large-sized places (places or clusters of communities with population of 1,000 or more), and other traffic generators providing intra-regional and inter-area traffic movements.

Rural Major Collectors: Major collectors provide service to smaller-to-moderate sized places (those with population of 100 or more) and other intra-area traffic generators; linking those traffic generators to larger populations nearby.

Rural Minor Collectors: Minor collectors provide service to all remaining smaller places (generally populations of 50 or more), link the locally important traffic generators with their rural hinterland, and their spacing is consistent with population density so as to collect traffic from local roads and bring all developed areas within a reasonable distance of a collector road.

Rural Local Roads: Local roads provide access to adjacent land and provide for travel over relatively short distances on an inter-township or intra-township basis. All rural roads not classified as arterials or collectors will be local function roads.

Urban Street Classification System

In urban areas, an urban roadway classification is used. An urban area is a place or cluster of places inside an urban boundary with a population of 5,000 or more. There are four classifications of streets in urban areas: principal arterials, minor arterials, collectors, and local streets.

Table 6 – Table 8 summarizes the criteria used to classify urban routes. (For more information refer to the WisDOT website's Facilities Development Manual and Chapter 4: Highway Systems.) Under MAP-21 provisions, all urban streets classified as collector or higher are eligible for federal funding.

Figure 1 illustrates the application of the functional classification system within the MPO; Table 9 lists the classification of the roadways.

Table 6: URBAN PRINCIPLE ARTERIAL FUNCTIONAL CLASSIFICATION

Urban Principal Arterial (UPA)						
	First apply Rural – Urban Interface		then apply Basic Criteria			
	Rural – Urban Interface An RPA becomes an UPA. An RMA or UMA changes to an UPA when it meets one of the following:		Basic Criteria Must meet either Land Use Service or Spacing plus Current ADT or Parenthetical ADT Alone			
Urban(ized) Area Population	Parenthetical CurrentADT Alone	Intersects with an UPA or UMA (or-the intersection is on the urban(ized) boundary and intersects a RPA or RMA plus Current ADT of:	Land Use Service A UPA should be within 1 mile of the following land uses:	Spacing	Current ADT	Desirable Mileage Percent of System
5,000 to 24,999	(≥6,000)	≥3,750	a. Main CBD of urban(ized) area b. Intermodal terminal (airport, rail passenger, etc). c. Regional shopping center d. Major college/ university e. Regional/Community park f. Industrial park g. Large stadium, arena, or convention center h. Primary medical center i. Gambling facility	Maximum CBD = 1 mile Other = 3 miles Milwaukee CO = 5 miles	≥3,750 (≥15,000)*	5.0% to 12.0%
25,000 to 49,999	(≥10,500)	≥6,000			≥6,000 (≥22,500)*	
50,000 +	(≥15,000)	≥9,000			≥9,000 (≥30,000)*	

* The highway/street segment must be a minimum of 1 mile long.

Source: Functional Classification Criteria, Wisconsin Department of Transportation

Table 7: URBAN MINOR ARTERIAL FUNCTIONAL CLASSIFICATION

Urban Minor Arterial (UMA)							
	First apply Rural – Urban Interface		then apply Basic Criteria				
	Rural – Urban Interface An RMA becomes a UMA until it meets UPA criteria. An RMAC or RMIC changes to an UMA when it meets one of the following:		Basic Criteria Must meet either Land Use Service or Spacing plus Current ADT or Parenthetical ADT Alone			Supplemental Criteria Must meet two (2) below plus 90% of Current ADT	
Urban(ized) Area Population	Parenthetical Current ADT Alone	Intersects with an UCOL, UMA or UPA plus Current ADT of:	Land Use Service A UMA should be within ½ mile of the following land uses:	Spacing	Current ADT		Desirable Mileage Percent of System
5,000 to 24,999	(≥3,000)	≥1,500	a. CBD of each satellite community b. Type 3, 4, & 5 airport c. Community shopping center d. Junior or community college e. Large industrial plant f. High school g. Large office building h. Community hospital i. Medical clinic j. Sub-community park k. Golf course l. Theatre complex m. Civic Center All commercial retail strip development over ¼ mile in length not on a UPA. Interconnection of main CBD with satellite community CBD's.	Maximum CBD =½ mile Other =2 miles	≥1,500 (≥6,000)*	1. Bus Route 2. Truck route 3. Signalization 4. Interchanges with a freeway 5. Major river crossing or Restrictive topography	10.0% to 15.0%
25,000 to 49,999	(≥6,000)	≥3,000			≥3,000 (≥10,500)*		
50,000 +	(≥9,000)	≥4,500			≥4,500 (≥15,000)*		

* The highway/street segment must be a minimum of ½ mile long.

Source: Functional Classification Criteria, Wisconsin Department of Transportation

Table 8: URBAN LOCAL CLASSIFICATION CRITERIA

All public streets not classified as UPA, UMA or UCOL.	65.0 - 80.0%

Source: Functional Classification Criteria, Wisconsin Department of Transportation

Principal Arterials: Principal arterials serve the major economic activity centers of an urban area, the highest ADT corridors, and regional and intra-urban trips. The long trip lengths and high ADT are indicative of these routes being the main entrance and exit routes, and that they are often extensions of the rural arterial system that carries people to and from the urban areas.

Minor Arterials: The main purpose of urban minor arterials is to provide traffic mobility, while providing greater land access than principal arterials. They serve important economic activity centers, have moderate ADT volumes, and serve intercommunity trips, interconnecting and augmenting the principal arterial system. Due to their function, minor arterials may be stub-ended at major traffic generators. Minor arterials should provide an urban extension of the rural collector system to the urban area CBD and connect satellite community CBD's with the region's main CBD.

Collectors: Collectors provide direct access to residential neighborhoods, commercial, and industrial areas, and serve inter-neighborhood trips while carrying a low ADT. They provide an equal amount of mobility and land access. As the name implies, these routes collect and distribute traffic between

local streets and arterials. To aid traffic circulation, collectors should be linked to other collectors and arterials, however, they may stub-end to serve isolated traffic and penetrate neighborhoods.

Local Streets: The primary purpose of local streets is to serve adjacent land uses. Local streets comprise the largest percentage of street mileage in the urban area. Trip lengths on local streets are typically one-half mile or less.

Figure 1: URBAN AND RURAL FUNCTIONAL CLASSIFICATION MAP

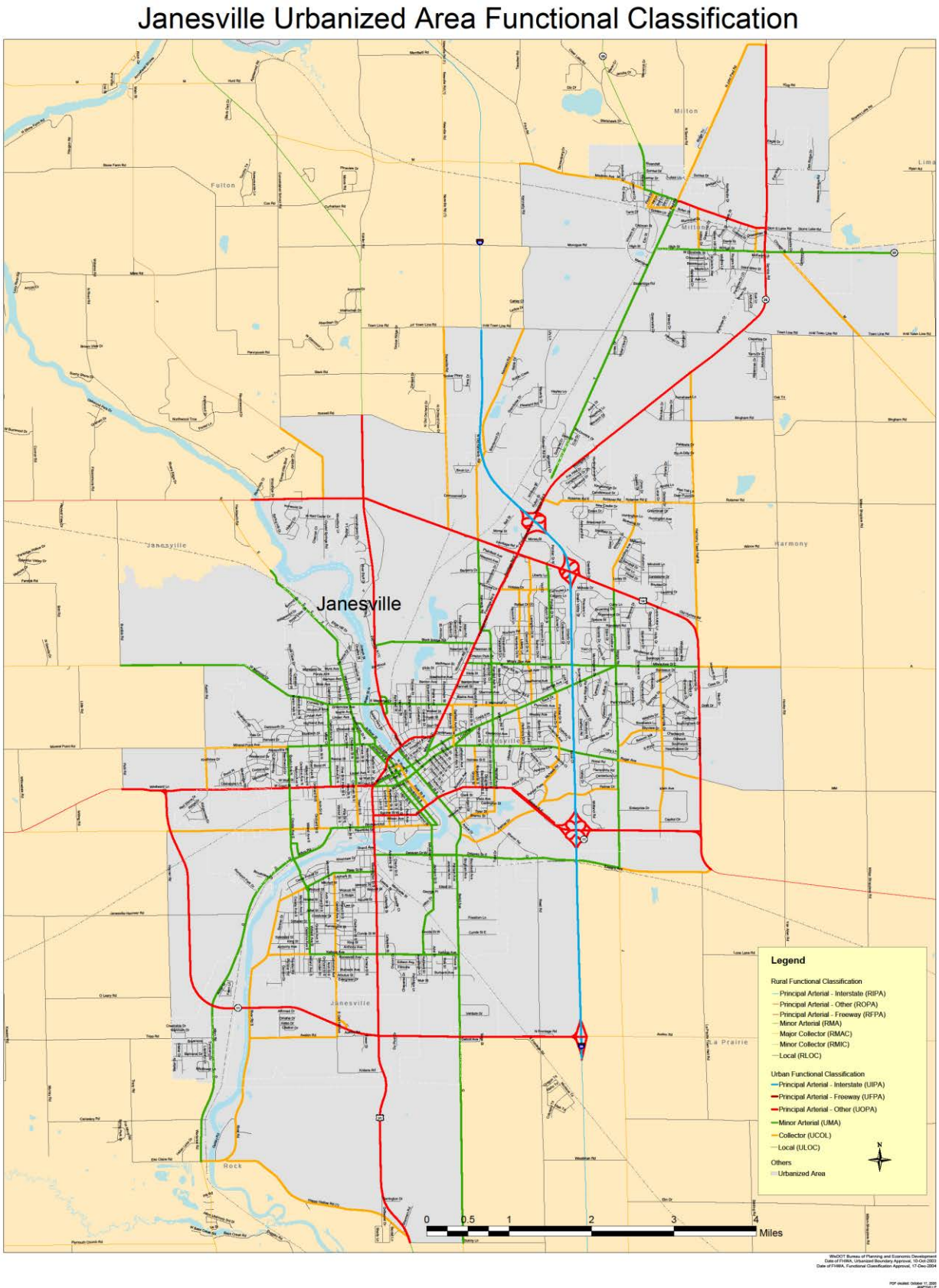


Table 9: CLASSIFICATION OF MPO PLANNING AREA

Principal Arterial		Minor Arterial			Major Collector			Minor Collector			Collector		
Rural [1]	Urban [2]	Rural (RMA)	Urban (UMA)		Rural (RMAC)		Urban	Rural (RMIC)		Urban	Rural	Urban (UCOL)	
		Segment	Segment	Description	Segment	Description		Segment	Description			Segment	Description
I - 90	I - 90	STH 59	Afton Rd.	Rockport Rd. to UAB [3]	Avalon Rd.	I - 39 to CTH J	Not Assigned	Avalon Rd.	CTH J to PAB	Not Assigned	Not Assigned	Academy St	E. Court St. to Rockport Rd.
USH 14	USH 51	USH 51	Black Bridge Rd.	USH 51 to STH 26	CTH A	USH 14 to PAB		CTH F	CTH M to UAB			Arch St	West Court St. to Rockport Rd.
STH 26	USH 14		Court St.	USH 51 to Milw aukee St.	CTH A	PAB to Burdick RD						Austin Rd.	Mineral Point Ave. to W. Court St
STH 11	STH 26		Crosby Ave Ramp	Crosby Ave. St. to Afton Rd.	CTH D Rd.	UAB to PAB						Avalon Rd.	River Rd. S to Oakhill Ave. S
	STH 11		Crosby Ave. S.	Mineral Pt to State St. W	CTH E	URP to USH 14						CTH F	Consolidated School Rd. to USH 14
	Racine St		CTH Y	McCormic Dr. to High St.	CTH G	Sunny Ln.. to PAB						CTH M / Chicago St.	H-M Tow n Line Rd. to STH 59
	W. Court		Delavan Dr. W	USH 51 to Wright Rd.	CTH J	CTH O to PAB [4]						E. Memorial Dr.	Milton Ave. to Harmony Dr.
			Franklin St. N.	Mineral Pt to Milton Ave	CTH M east	UAB to PAB						Front St.	Vernal Rd. to STH 59
			Franklin St. S.	E Court St. to Rockport Rd.	CTH M w est	USH 51 to UAB						Garfield Ave N.	E Memorial Dr to Ruger Ave
			High St	John Paul Rd. to UAB	CTH M w est	PAB to USH 51						Happy Hollow Rd.	River Rd. to USH 51
			Jackson St.	Mineral Pt. Ave. to Kellogg	CTH O	Wright Rd. to USH 14						Harmony Dr.	E. Memorial Dr. to Ruger Ave
			John Paul Rd.	High St. to STH 59	Plymouth Church Rd.	PAB to CTH D Rd.						Hilltop Drive.	W. High St. to STH 59
			Kellogg Ave	Crosby Ave to Beloit Ave	Rockport Rd	Willow dale Rd. to Hayner Rd.						Holiday Dr.	STH 26 to Pontiac Dr
			Kennedy Rd.	USH 14 to Racine St. W.								Kellogg Ave	River Rd. S to Willard Ave. S
			Kennedy Rd.	USH 14 to STH 26								Kennedy Rd.	USH 14 to H-M Tow n Line Rd.
			Main St. S. / Beloit Ave.	USH 51 to STH 11								Lexington Dr. N.	USH 14 to Milw aukee St. E.
			Milw aukee St E.	UAB to USH 51								Liberty Ln..	Holiday Dr. to Mount Zion Ave.
			Mineral Point	Crosby Ave to Franklin								Madison Ave/ CTH M	Kennedy Rd. to STH 59
			Mount Zion	STH 26 to Wright Rd.								Merchant Row	Vernal to STH 59
			N River St.	Washington St. N to Franklin St. N.								Mineral Point Ave	Austin Rd. to Crosby Ave
			Oakhill Ave	Greenview to W. Court St								Mohaw k Rd.	Palmer Dr. to Lexington Dr.
			Pearl St.	Highland to W. Court St								N John Paul Rd.	STH 26 to STH 59
			Pontiac Dr. N	USH 14 to Milw aukee St. E.								New ville Rd.	J-F Tow n line rd. to USH 14
			Randall Ave N.	USH 26 to Racine St								Oakhill Ave. S.	State St. W to Avalon Rd.
			Ruger Ave.	E Court St. to Wright Rd.								Palmer Dr.	Beloit Ave. to Wright Rd.
			State St W	Crosby to Washington St								Parkview Drive	W. High St. to STH 59
			STH 59	UAB to John Paul Rd.								Pearl St.	West Court St to Rockport Rd.
			Washington St North	UAB to Mineral Pt.								Pontiac Dr. S	Lexington Dr. to Milw aukee St.
			West Memorial Dr	UAB to Milton								Randall Ave S.	Racine St. E to Tyler St.
			Willard Ave S.	State St. W. to Kellogg Ave.								Ringold St.	Ruger Ave to Racine St.
			Wright Rd.	USH 14 to Delavan Dr. W.								River Rd. S	Afton Rd. to Crosby Ave.
			Prairie Ave	STH 11 to Sunny Lane								River St.	Franklin St to Racine St.
												Rockport Rd.	Hayner Rd. to Afton Rd.
												Rockport Rd.	USH 51 to Jackson St.
												Rotamer Rd.	STH 26 to Harmony Tow n Hall Rd.
												Ruger Ave	Wright Rd. to STH 14
												Skyview Dr.	Wright Rd. to Wuthering Hills Dr
												Spaulding Ave	USH 14 to Rotamer Rd.
												Tyler St.	Main St to Randall Ave. S
												Vernal Ave	Merchant Row to John Paul Rd.
												Wuthering Hills Dr.	Milw aukee St to STH 11

1. Interstate (RIPA), Freeway (RFPA), Other (ROPA)
2. Interstate (UIPA), Freeway (UFPA), Other (UOPA)
3. UAB- Urban Area Boundary.
4. PAB - Planning Area Boundary.

Local roads are all those not listed

Source: WisDOT

CITY OF JANESVILLE STREET STANDARDS

The City of Janesville's street standards build upon the National Functional Classification Criteria, incorporating city specific standards for right-of-way width, sidewalk width, on-street parking, and pavement width. These standards were originally adopted by the City as part of the *1971 JATS Plan* and were reviewed when the *2005 Traffic Circulation Plan* was prepared. The City's standards are described in Table 10 and depicted in Table 11.

While the basis for the City standards is functional classification, the City of Janesville's classifications differ slightly from the federal and state classifications in terminology and design specifics. The following lists illustrate the differences between the classification systems.

Federal/State Functional Classification	City of Janesville Standards
Principal Arterial	Primary Arterial
Minor Arterial	Standard Arterial
Collector	Collector
Local	Local

City Street Standards

The City of Janesville established standards for right-of-way width based on the City Engineer's recommended width for traffic lanes, parking lanes, curbs, sidewalks, and terrace areas.

Pavement width is a function of traffic volumes and parking availability.

- **Travel Lane Width**
  - Local roads with a low traffic volumes- 10 ft. travel lane (minimum recommended width)
  - Collector and higher classifications or roads with a higher volume of traffic- 12 ft. travel lane.
  - Parking, the number of intersections, speed limit, and type of traffic control devices are other considerations that affect the pavement width.
- **On-street parking** is determined by traffic volumes, adjacent land uses, and side street access. Pavement width for parking ranges from 8ft. to 10ft.
  - Collector and local streets- 8 ft. wide spaces.
  - Standard arterial and higher – 10 ft. wide spaces.
- **Curb width** is 2 feet to curb face, and is typically used by vehicles parking on the street.
- **Remaining street right-of-way** is used for sidewalks and a terrace.
- **Terrace**
  - Area reserved for telephone, cable television and utility lines, sidewalks, planting strip and in winter it can be used for snow storage.
- **Planting Strip**
  - Local, collector and standard arterial- 5ft. minimum.
  - Primary Arterial- 7 to 10 ft.
- **Sidewalks**
  - Recommended width of 5 ft.
    - The construction of five-foot wide sidewalks within the terrace is governed by the City's sidewalk policy and recommendations from neighborhood plans.

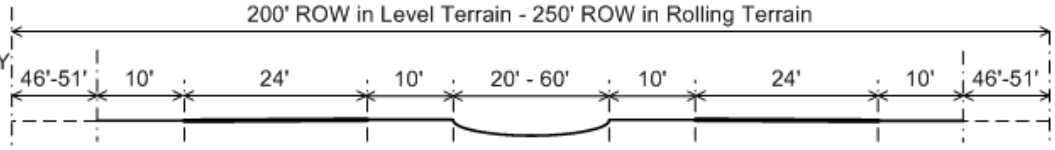
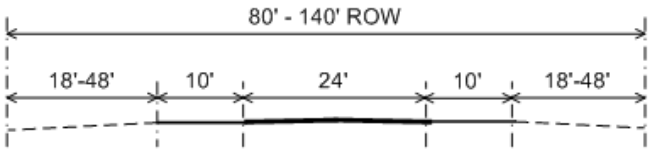
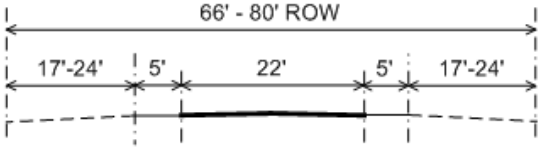
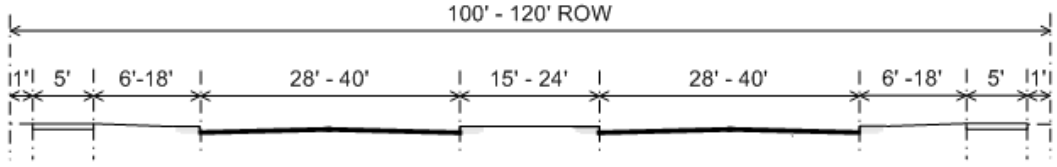
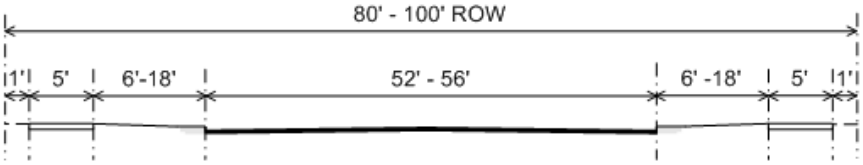
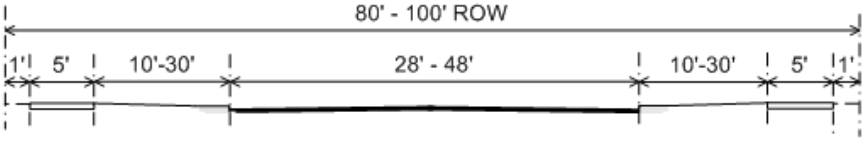
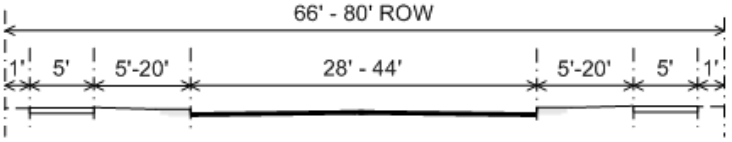
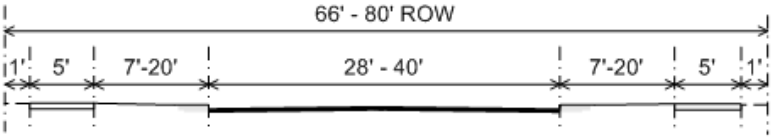
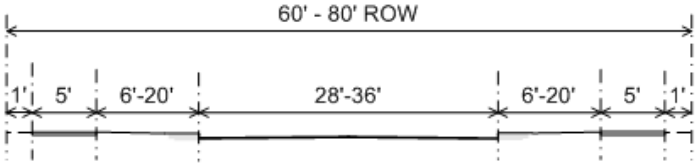
- **Bike Lanes**
  - See section on bike lane standards.

Table 10: CITY OF JANESVILLE GENERAL STREET STANDARDS

Functional Classification	ROW Width /(Pavement Width)	Min. Design Speed	Suggested Design Features
D) Urban Expressway - Primary Arterial	100' min.-120' des./ (56'- 80')	45 mph	4-6 lanes; no parking (divided roadway). Limited access, signals at major intersections. Left turn accommodations. Requires min. of 5' wide sidewalk. On-street bicycle facilities discouraged
E) Primary Arterial or Standard Arterial	80' min.-100' des./ (52'-56')	35-45 mph	4 lanes; no parking. Limited direct access. Signals at major intersections. Left turn accommodations. Min. 5' wide detached sidewalks. Bicycle facility: wide curb lanes or bike lanes.
F) Standard Arterial	80' min.-100' des./ (28’ - 48')	30-40 mph	2-4 lanes; parking one or both sides. Left turn accommodations. Limited direct access. Signals where needed, stop signs on side streets. 10' wide min. planting strip with 5' wide detached sidewalks. Bicycle facility: wide curb lanes or bike lanes.
G) Standard Arterial	66' min.- 80' des./ (28’ - 44')	30-40 mph	2 lanes; parking. Left turn accommodations. Signals where needed, stop signs on side streets. 5' wide min. planting strip with 5' wide detached sidewalks. Bicycle facility: wide curb lanes or shared roadway. Limited direct access drives.
H) Standard Arterial or Collector	66' min.- 80' des./ (28’ - 40')	25-35 mph	2 lanes; parking. Left turn accommodations. Stop signs on side streets. 7' wide min. planting strip with 5' wide detached sidewalk. Bicycle facility: wide curb lane or shared roadway. Limited direct access drives.
I) Local	60' min.-70' des./ (28’-36’)	25 mph	10’ – 15’ terrace. 5' wide detached sidewalk. Bicycle facility: shared roadway. Parking.

Source: 1983 Transportation Analysis Base Study Series; 1987-2005 Traffic Circulation Plan

Table 11: GENERAL STREET STANDARDS

RURAL EXPRESSWAY PRIMARY ARTERIAL **A**	
RURAL STANDARD ARTERIAL **B**	
RURAL COLLETOR **C**	
URBAN EXPRESSWAY PRIMARY ARTERIAL **D**	
PRIMARY ARTERIAL or STANDARD ARTERIAL **E**	
STANDARD ARTERIAL **F**	
STANDARD ARTERIAL **G**	
STANDARD ARTERIAL or COLLECTOR **H**	
LOCAL **I**	

Note: Gutter pan on D-I is 2.0'

Narrow Street Standards

Narrow street standards (also known as skinny streets) is an approach to residential development that provides roadway design flexibility and supports residential livability. The City of Janesville passed a narrow street ordinance in 2006. Janesville residential streets are typically 36 ft. (curb face to curb face) with a 70 ft. right-of-way width; the narrow street standard is 28 ft. (curb face to curb face) with 60 ft. or less of right-of-way.[2] Street width less than 28 feet may be considered with restricted street parking, or if access is limited from physical or topographical challenges and limitations. Land uses served by narrow streets are low-density residential areas consisting of single-family housing; with limited two-family housing (if it does not diminish the characteristics of the neighborhood) allowed only by a conditional use permit.[3] The residential zoning ensures the characteristics of these neighborhoods are able to maintain residential charm of open green space, restricted multi-family housing and limited two family housing, and limited non-local traffic.

Narrow streets support residential neighborhoods by providing the benefits of:

- Calms (slows) traffic
- Discourages non-local traffic
- Promotes walking and biking
- Creates neighborhood identity
- Preserves green space

Narrow streets tend to be less expensive to build and maintain overall than a standard width residential street due to the reduced width of the street. Cost savings are proportional to the reduced road width from a standard 36 feet (curb face to curb face) street to a narrow street, approximately 20% savings depending on road width. Additionally, based on the 1994 assessment from reducing street standard width to 28 feet is $19.00 from $26.00. A lot width of 110 feet would be assessed $2,860 for standard street width compared to $2,090 for a narrow street (savings of $715). Overall, the maintenance required by the City is lower due to the reduced need for multiple passes on the street to maintain streets clear of debris and snow. Rehabilitation of narrow streets would also cost less due to the reduced width.

An environmental benefit of constructing narrow streets is the reduction of stormwater runoff. The effects of impervious surfaces, especially in urbanized areas, are the increased pollutants into waterways from surface runoff. Runoff increases erosion and reduces bank stability, rapid rates of temperature changes, and alters the organic biology by introducing or restricting movement of pollutants or sediments and nutrients. With narrow streets, the total street footprint is much less than a traditional street reducing the overall negative environmental effect.

The narrow street ordinance presents a unique opportunity for real estate developers. Along with the R1 zoning (new single-family housing) developers can reduce their financial burden from reduced roadway material cost and the need to clear large amounts of land.

City of Janesville Narrow Street Examples:

- **Benton Avenue (between Milton Avenue and Ringold Street)** is an example of a narrow street with a road width of 28 ft. (curb face to curb face) and right-of-way of 40 ft.
- **Bennett Avenue (directly south of Benton)** is 29 ft. (curb face to curb face) with a 50 ft. of

[2] City Ordinance 17.40.065 Street Width Applications

[3] City Ordinance 18.36.020 Residence Districts, Section B: R1 – Single-Family and Two-Family Resident District

right-of-way.

- **Sherman Avenue (directly south of Bennett)** is wider than a typical narrow street at 30 ft. (curb face to curb face) with a 66 ft. right-of-way
- **North Walnut Street** is 28 ft. (curb face to curb face) with a 50 ft. right-of-way. From Ravine to Mineral Point Avenue, parking is restricted for one block.
- **Forest Park Boulevard (between Ruger Avenue and East Court Street)** has a 26 ft. (curb face to curb face) with a 50 ft. wide right-of-way.

Safety Conversions

The Bicycle & Pedestrian Section identifies three roadways in Janesville that may benefit from a road reconfiguration a.k.a. safety conversion. A safety conversion refers to the reconfiguration of a roadway from a four lane undivided roadway to two driving lanes, a two-way left turn lane (TWLTL, pronounced "Twiddle"), and either bike lanes or a lane of parking. Some of the potential benefits of a three lane TWLTL over the current four lane undivided road are:

- Improving safety for bicyclists.
- Improving speed limit compliance and decreasing crash severity when crashes do occur.
- The two-way left turn lane reduces the number of mid-block and intersection conflict points thereby reducing rear-end and side swipe crashes.
- The two-way left turn lane can be used by vehicles traveling in either direction for deceleration and refuge while making a midblock left turn maneuver.
- The two-way left turn lane can be used as an acceleration lane for vehicles turning left to enter the street from mid-block driveways.
- The two-way left turn lane can allow for easier and safer emergency vehicle movement, particularly during peak hour periods.
- Conventional exclusive left and right turn lanes remain at major intersections.

A potential disadvantage of the TWLTL is the possibility of slightly increased delays and backups at signalized intersections during peak hour traffic periods because the TWLTL maintains only one lane of thru traffic. However, the benefits of converting from a four lane undivided roadway to a three lane TWLTL have been found to outweigh the potential peak hour delays.

The conversion from a four lane undivided roadway to a three lane TWLTL has been successfully made in multiple communities in Wisconsin and across the United States over the last several decades. Conversions of streets with Average Daily Traffic (ADT) less than 17,500 vehicles have been found to adequately handle traffic, reduce accidents, and improve bicycle and pedestrian safety on streets with multiple residential driveways and commercial accesses.

The Bicycle & Pedestrian Section suggested the study of three roadways in Janesville. These roadways are recommended for further study and evaluation in the Streets & Highways Section.

CITY OF MILTON STREET STANDARDS

The City of Milton's street standards build upon the National Functional Classification Criteria, incorporating city specific standards for right-of-way width, sidewalk width, and pavement width. The City of Milton's street standards are listed below in and have been adopted as part of their current city code.

Table 12: MILTON'S STREET STANDARDS

Description	ROW	Pvmnt (1) Width	Lane Width	Sidewalks (3)	Min. Ret. Radius	Min. Radius	Rvrs/Curve Tangent	NEX. Grade (4)	Cul-De-Sac				Temp (5) Dead End	
									Max Length	ROW	Dis.	Pvmnt Width	Max Length	Pvmnt Width
Arterials	100'	48'	12'	2	30'	450'	150'	9%	--	--	--	--	1,000'	44'
Collector (2)	80'	36'	36'	2	20'	450'	150'	9%	--	--	--	--	1,000'	30'
Industrial	80'	36'	12'	Optional (3)	30'	320'	150'	9%	600'	120'	--	--	1,000'	36'
Local	66'	28'	10'	2	20'	200'	100'	9%	600'	120'	--	--	2,000'	28'
Frontage	50'	--	--	Optional (3)	--	--	--	--	--	--	--	--	--	--
Alleys	25'	18'	--	None	10'	--	--	--	--	--	--	--	--	--

1. Pavement width without curb and cutter (edge of pavement to edge of pavement).
2. If a vertical curve is under 500' radius, the maximum grade allowed is 5% minus, 0.5% for each 50' radius under 500'.
3. Requirements to be determined by the Plan Commission.
4. Minimum street grade 0.5% - Shall not exceed standards, unless necessitated by topography and approved by City Council upon recommendation by City Engineer.
5. "T" turnaround my be used. Turnaround shall extend a minimum of 20' behind the back of the curb on the permanent street and be 20 ' wide. Turnaround shall be paved.

BIKE LANE STANDARDS

Bike lane standards are based on the *Wisconsin Bicycle Facility Design Handbook 2004* and are meant as general guidelines only. Illustrations of suggested lane and shoulder widths are provided in the Bicycle and Pedestrian Section of this plan.

Rural Areas

In rural areas, a paved shoulder is normally provided in lieu of a dedicated and striped bike lane. The standard paved shoulder is built to depend on actual vehicle and bicycle ADT, or the recommended bicycle ADT expected on the route. On roadways with very low ADT, less than 700 vehicles per day, there will typically be adequate facility space for bicycles and motorized vehicles to share the existing roadway.

Table 13: RURAL STATE HIGHWAY BIKE LANE WIDTHS

Rural Two-Lane State Trunk Highway Paved Shoulder Width Requirements to Accommodate Bicycles		
Motor Vehicle ADT	Bicycle ADT (or Expected ADT)	
	0-24	□ 25 [1]
Under 700	0 ft [2]	0 ft [2]
700 - 1500	0-3 ft [2]	4 ft [3]
1501 - 3500	3 ft [2]	5 & 6 ft [2, 5]
□ 3501 [4,]	4 ft [2]	5 ft [2, 4, 5]

(1) 25 bicycles per day (existing or expected) OR the ADT recommended for the planned route.

(2) For roadways that do not meet the bicycle ADT requirement, a 3 ft. (0.9 m) shoulder should typically be provided. However, for roadways with ADTs over 3500, a minimum of a 4 ft. (1.2 m) paved shoulder is highly recommended.

(3) 3 ft. (0.9 m) is acceptable where shoulder widths are not being widened and/or vehicle ADT is close to the bottom of the range.

(4) When ADTs exceed 4,500, a 6 ft paved shoulder is advisable.

(5) A 6 ft. paved shoulder may be highly desirable for maintenance purposes since this class calls for 6 ft. gravel shoulders. Paving the shoulders entire width is often preferred over leaving only 1 ft. of gravel shoulder.

Source: WisDOT, *Wisconsin Bicycle Facility Design Handbook,* 2004*, minor updates in 2006 and 2009*

NOTE: Additional resources for planning rural bicycle routes are available from WisDOT. Notably, *Planning for Rural Bicycle Routes* and the WisDOT *Guide to Rural Bicycle Facilities.*

Urban Areas

In urban areas, bike lanes should be on the right side of the street in most cases, and adequately marked or signed so they are not mistaken for additional vehicle travel lanes or parking areas. The lane widths recommended in Table 14 are minimums, and may not be sufficient in high use areas, when the adjacent traffic lane is less than 11 ft. wide, on high-speed facilities where wider shoulders are warranted or when the lane is shared with pedestrians. In general, the minimum combined width of bicycle and parking lanes should be approximately 13 ft. This is to allow for adequate room for bikers to maneuver around poorly parked vehicles and opening doors. When bus and bike lanes are combined the bike lane should be to the left of the bus lane so buses can easily pull to the curb.

Table 14: URBAN ROADWAY BIKE LANE WIDTHS

Urban Roadway Paved Shoulder Width Requirements to Accommodate Bicycles	
Street Type	Bike Lane Width
Curbed asphalt or concrete, no parking	4 ft [1, 6]
Curbed concrete street, integral curb, no parking	5 ft [2]
Curbed street, parking	5 ft [3, 4]
No curb, speeds ☐ 35 mph	5 ft [5]
No curb, speeds < 35 mph	4 ft [5]

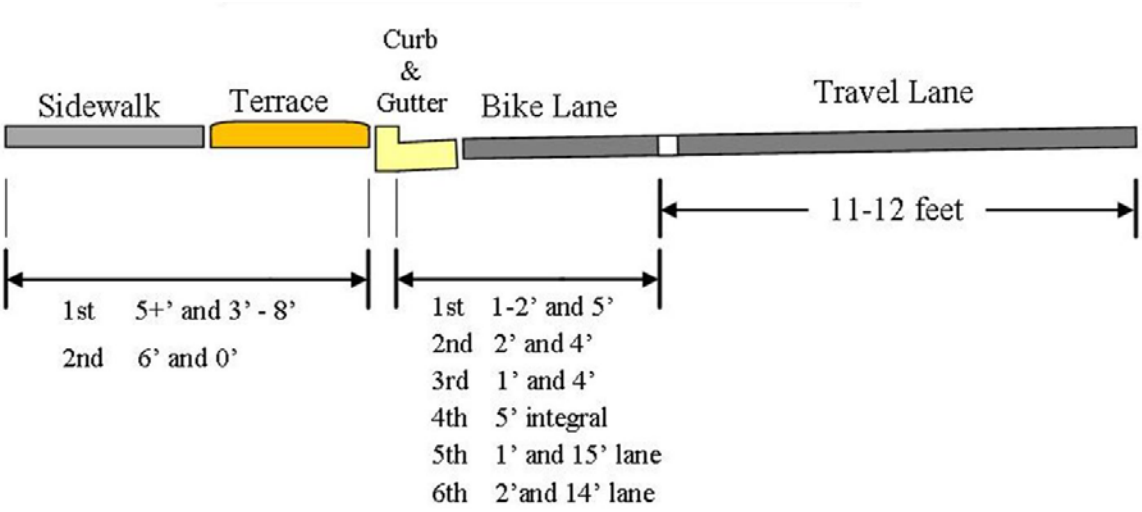
All measurements are minimum suggested widths.

1. Measured from inside the stripe to the joint line of the gutter pan.
2. Measured from face of curb to the inside of the bicycle lane stripe.
3. May be wider if parking volumes or parking turnover is high
4. Assumes a 8 to 10 ft. parking lane.
5. Assumes these are not rural roadways. Rural roads have their own standards.
6. Not including gutter pan.

Source: WisDOT, *Wisconsin Bicycle Facility Design Handbook*, 2004.

Bicycle lane standards are designed to be flexible in order to adapt to various road geometries. Figure 2 shows the possible configurations of bike lane widths. The preferred width is a 1'-2' curb and gutter pan with a 5' bike lane.

Figure 2: URBAN CROSS SECTION DIMENSIONS



CURRENT TRANSPORTATION ISSUES

Congestion

The I-39/90 corridor has the most serious congestion issues in the Janesville area. Traffic is heavy particularly on weekends during the tourist season. Few other streets or highways in the planning area experience congestion. The commercial areas along Milton Ave./STH 26 and Humes Rd./USH 14 experience some delay because there are many traffic signals (and one at-grade rail crossing) along the corridors, although they are not considered congested from a capacity definition.

Rail Transportation

Although the focus of this chapter is highways and streets, rail lines affect traffic flow along major streets such as West Court Street, Delavan Drive, USH 51 and USH 14 in Janesville and John Paul Road and Janesville Street in Milton where at-grade crossings are located. Trains sometimes block these intersections for long periods, creating delay and congestion. Trains delay emergency response vehicles, which is a particular issue in Milton where the city is bifurcated by rail line. There are no grade-separated crossings in Milton to allow vehicles north-south access.

The Union Pacific and Wisconsin & Southern railways serve the City of Janesville and Wisconsin & Southern serves the City of Milton. The Wisconsin & Southern railroad uses Janesville as the hub from which they serve south central Wisconsin and northern Illinois. The Janesville area utilizes rail primarily to haul manufacturing components and agricultural commodities. In several locations within the urban area, abandoned track has been converted into mixed-use recreation trails. A map of Janesville's existing rail lines and specific rail related issues are addressed in the Freight section of this plan.

Parking

The majority of the street network within the urbanized area is designed to provide at least one lane of parking. The availability of on-street parking relates to the design standards, functional classification, and speed limit of each street.

On-Street Parking

On-street parking can act as a traffic calming measure (if certain conditions are met such as high parking occupancy) by reducing vehicle speeds by narrowing the perceived roadway and necessitating that drivers be aware of other vehicles and pedestrians entering or leaving the roadway. In the City of Janesville, on-street parking is restricted on several of the City's major arterials. The commercial development along major arterials where parking is restricted provides ample off-street private parking for consumer needs.

On-street parking is more common along streets with lower average daily traffic and in business areas that developed during the City of Janesville's inception. In Janesville's Downtown short-term on-street parking is currently a necessity for the offices and businesses located there. In residential neighborhoods with limited through traffic on-street parking is also common.

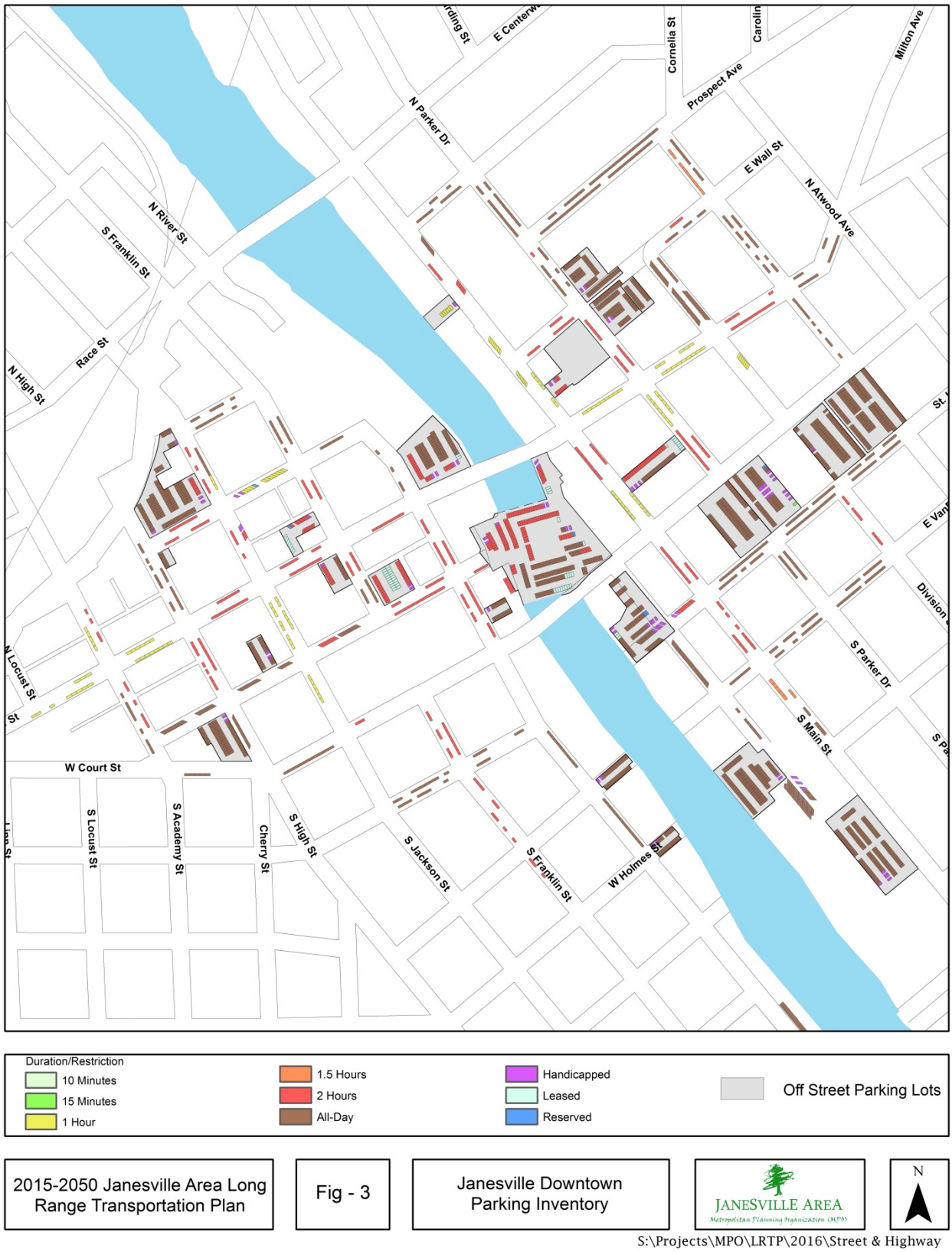
Public Parking

The largest capacity public parking lot in the MPO is the Parker/Wall ramp in Downtown Janesville completed in 2010, located at the southwest corner of North Parker Drive and East Wall Street. The ramp provides 234 parking spaces with an occupancy rate of 41%, as of the most recent spring 2015 parking study.[4] Before the completion of the Parker/Wall ramp, the Parking Plaza provided the highest capacity of public parking lot. At the time of the 2015 parking study, the Parking Plaza contained 176 parking spaces. Approximately 150 parking spaces were unavailable or restricted due to structural deterioration or construction activities occurring adjacent to the parking deck. The Parking Plaza is scheduled to be removed in late 2016 due to the deteriorating state of the structure. Figure 3 provides a map of Janesville's 2015 parking inventory.

The MPO is expecting to spread the loss of parking spaces created from the removal of the Parking Plaza throughout Downtown Janesville. The Parker/Wall ramp is expected to take on the largest numbers of vehicle parking increasing from its 42% and opening the top floor for parking, which currently is closed off. Other off-street public lots in the vicinity are underutilized. In 2015, including the Parking Plaza, the downtown parking occupancy rate was 51%; without the Parking Plaza the downtown parking occupancy rate would still only be 59% used. Overall, Downtown Janesville parking availability should not be greatly affected with the Parking Plaza removal.

[4] Janesville Area Metropolitan Planning Organization, *Downtown Parking Study*, Janesville, WI 2015.

Figure 3: CITY OF JANESVILLE DOWNTOWN PARKING INVENTORY



Parking Overlay District

A Parking Overlay District encompasses most of the Central Business District in downtown Janesville. The overlay exempts parking requirements for commercial developments in the zoning code. Instead, the City manages parking based on a shared-use model. The intentions of the Parking Overlay District are to lessen congestion on streets, and encourage off-street parking.[5] It also supports property values and encourages private development.

Park-and-Ride

The MPO planning area currently has no official park-and-ride locations. However, the Wisconsin Department of Transportation has identified two future locations for a park-and-ride based on a regional park-and-ride study completed in 2015. WisDOT identified the HWY-26 interchange as the 3rd ranked park-and-ride location in the southwest region. Currently, the Vanpool Rideshare Program[6] has been using the old Kmart parking lot as a park-and-ride supporting commuters from Janesville to Madison for work. The opening of Festival Foods, replacing Kmart, may put the Vanpool Ridershare park-and-ride location in jeopardy. The other location identified for a park-and-ride is at the East Racine Street and I-39/90 Interchange, ranked 19th. The location is ideal due to the State's ownership of right-of-way at the interchange. There are plans to construct a park-and-ride lot at this interchange as part of the I-39/90 reconstruction project.

With high numbers of commuters traveling to Rockford and Madison, it is important to support these individuals by providing proper amenities to support their travel choice. Currently, 86.4% of workers in the southwest region drive alone to work. A WisDOT survey indicated that commuters would carpool if:

- There is a facilitator to coordinator carpooling (39.7%)
- Hours are similar to others (17.3%)
- Do nothing (43%)

Additionally, it is important the Vanpool Rideshare Program continue to support commuters. If the program were to be dissolved, it would encourage 82% of all Vanpool participants to drive alone, as indicated by the WisDOT study. The remaining 13.2% and 2.2% or participants would carpool or use the Van Galder bus service, respectively.

[5] City Ordinance 18.36.070 Overlay Supplemental Districts, Section B: District Requirements, Subsection 1: P-Parking Overlay District

[6] Vanpool Rideshare Program. http://www.doa.state.wi.us/Divisions/Enterprise-Operations/Bureau-of-Enterprise-Fleet/Vanpool-Rideshare-Program/

4. TRAVEL DEMAND 2050

This section of the plan describes travel patterns within the Janesville planning area and the travel demand forecasting process used to predict future travel on the existing and planned street system. The Wisconsin Department of Transportation completed the travel demand forecasting. Travel demand forecasting uses current socioeconomic, land use, and highway data to create a model of the road network and its use in 2050. Current traffic is modeled by establishing a relationship between trip-making behavior and current socioeconomic and land used data. Traffic growth can then be estimated by projecting this data to a future year, and using these same relationships, to generate future trips. These current and future trips are loaded onto the current street network in order to determine deficiencies in the ability of the street system to carry traffic efficiently. When "operational capacity" deficiencies in the current network appear, alternative networks can then be tested to see which combination of improvements might alleviate these deficiencies most effectively.

The main inputs into the modeling process were current socioeconomic, land use data that had been projected into the future, and the highway improvements expected by 2050. After trip-making relationships were established with the current data, the projected data and alternative vision of the future highway network enabled the forecasting of future traffic volumes on various alternative networks. Expected changes to the system, such as the addition of new roadways or the expansion of existing facilities were incorporated into the models future road network, increasing the models ability to accurately predict how each road segment will function in 2050. The travel demand modeling process provides an overall picture of how the MPO's street system works. The model is useful at several levels: first, at the planning level of analysis, to determine capacity deficiencies and for alternatives testing, and, second, in a micro level of analysis, as a tool in facilities forecasting, including turning movement analysis. The model can give an indication of intersection capacity, but operational evaluations, such as signal timing, require additional software.

The primary purpose of the travel forecast process is to identify roadways that will experience future congestion. The solutions used to alleviate congestion problems in the Janesville area typically fall within three categories: 1) Operations, 2) Transit Improvements, and 3) Roadway Improvements.

Operations

Operational improvements include Intelligent Transportation Systems (ITS), Transportation Demand Management (TDM), enhancements to the existing physical system and system preservation.

ITS incorporates technology into the transportation system. It can control the speed at which vehicles enter a given roadway or provide drivers with real-time information about roadway conditions, alternate route suggestions, and trip times. By controlling the flow of vehicles and allowing users to make informed decisions about their trip ITS aids in increasing the capacity of the transportation system.

TDM alleviates congestion by decreasing overall travel demand, reducing the number of single occupant vehicles and the need to make trips, or by altering the time periods users travel. To achieve the desired changes in demand TDM relies on incentives and disincentives, such as reducing the number of public parking spaces, increasing the cost of public parking, providing easy to access park 'n ride lots, more efficient bus service, and employer-supported transportation incentives such as flex-time work schedules and transit passes.

Improvements to the existing system improve the functioning of the physical capital already in place. Restriping, redirecting traffic, removal of parking or changes to traffic controls are examples of enhancements to the existing system. Restriping can make existing lanes more visible, increasing users confidence, which can aid the flow of traffic, and in some cases the number of people willing to use a route. Adding one and two-way lanes redirects traffic and creates new routes. Removing on-street parking may make an existing route more desirable, diverting traffic onto it from surrounding congested segments. Making the timing of traffic signals more efficient and changing the types of traffic controls at select intersections, such as adding a dedicated turn arrow are minimal operational changes that can greatly increase the flow of vehicles.

System preservation allows the system to be maintained at the level necessary for it to be used to its fullest capacity and for its intended lifecycle.

Transit Improvements

Transit improvements are intended to increase the viability of transit. Transit gives greater mobility to those without personal vehicles and provides an alternative mode of transport to those who would normally make their trips in single occupant vehicles.

Examples of ways to increase the viability of transit:

- More frequent service
- Bike racks on buses
- Expanded service areas
- Express routes between key users origins and destinations

The Transit section of the Long Range Plan discusses Janesville's Transit System in greater depth, and how specific improvements can be implemented in the future.

System Enhancement

System Enhancements add capacity through new travel lanes on existing roadways or the creation of new road segments, which is one of the most obvious forms of congestion management and most expensive. The realignment of roadways, through the use of a bypass or other measure, is also within this category. Capacity expansion has the ability to alleviate both current and future congestion.

CONNECTED AND AUTONOMOUS VEHICLES

Connected and autonomous vehicles are a rapidly emerging technology or set of technologies that may revolutionize transportation in the next 35 years. This plan does not explore the impact of how connected and autonomous vehicles might impact travel demand, design and investment decisions regarding surface transportation.

BACKGROUND & MODEL INPUTS

Traffic Volumes

Traffic volumes on urban streets and rural roads are indicators of the functional classification of a route, the type of land use adjacent to the corridor, and the size of traffic generators located on that route. Current traffic is modeled by establishing a relationship between trip-making behavior and current socioeconomic and land use data. Traffic growth can be estimated by projecting this data to a future year and using these same relationships to generate future trips. These current and future trips are loaded onto the current street network in order to determine if the street system will be able to carry the predicted traffic efficiently, or if deficiencies will exist. When "operational capacity" deficiencies in the current network appear, alternative networks can then be tested to see which combination of improvements might alleviate these deficiencies most effectively. The level of congestion, or capacity deficiency, on any given street can be determined by comparing traffic volumes to its "operational capacity" or "level of service" (a numeric value representing a driver's "level of comfort"). The level of service (LOS) number tells us whether the street is operationally deficient. LOS concepts are described more fully below.

Trip Purpose

Traffic volumes help identify heavily-used arterial and collector streets and provide an indication of how traffic circulates near major traffic generators. Data on traffic volume is limiting in that it tells us where the traffic *is* but not necessarily where the traffic *is going*. Origin and destination studies provide a more macro-level indication of the types of trips being made, along with their beginning and ending points. In the modeling process information on trip purpose indicates different trip lengths and behaviors. For example, a home-based work trip will most likely be a longer trip in miles and have fewer stops than a home-based shopping trip, which may travel a shorter distance, stop multiple times and take a longer amount of time.

Socioeconomic Data

Forecasted population, households, and employment levels for the Janesville MPO Planning Area are used in the transportation planning process to determine the amount of possible future traffic generated by households, businesses, shopping, schools, and industry. The ratio of population to available dwelling units directly affects trip production, as does auto ownership and employment. Shifts in employment, such as growth or decline in manufacturing, trade, or service employment influence the number of work-related trips generated or attracted to a particular employment sector.

The population of the Janesville Planning Area is projected to grow from 82,077 persons in 2010 to 98,330 persons in 2050, an increase of 20%. The number of households in the planning area is expected to increase from 32,990 to 43,433 and total employment is forecasted to increase from 37,300 in 2010 to 73,980 jobs in 2050. The tables below show the population and household projections used for the forecast modeling effort.

Table 15: MPO POPULATION 1980 - 2050

	1980	1990	2000	2010	2020	2030	2040	2050
City of Janesville	51,071	52,210	60,200	63,575	67,500	72,100	74,000	75,900
City of Milton	4,092	4,444	5,132	5,546	5,935	6,400	6,615	6,830
Town of Harmony	2,090	2,138	2,351	2,569	2,785	3,045	3,195	3,345
Town of Janesville	3,068	3,121	3,048	3,434	3,750	4,145	4,385	4,625
Town of La Prairie	1,099	943	929	834	815	790	730	730
Town of Milton	2,306	2,353	2,844	2,923	3,150	3,390	3,505	3,620
Town of Rock	3,399	3,172	3,338	3,196	3,290	3,370	3,325	3,280
Total	67,125	68,381	77,842	82,077	87,225	93,240	95,755	98,330

Source: WI Dept. of Administration

Table 16: MPO HOUSEHOLDS 1990-2050

	1990	2000	2010	2020	2030	2040	2050
City of Janesville	20,388	23,894	25,828	28,655	31,279	32,579	33,879
City of Milton	1,675	2,034	2,231	2,495	2,752	2,892	3,032
Town of Harmony	701	787	906	1,026	1,148	1,225	1,302
Town of Janesville	897	1,137	1,325	1,512	1,710	1,839	1,968
Town of LaPrairie	317	342	331	338	335	315	315
Town of Milton	864	1,061	1,129	1,272	1,400	1,471	1,542
Town of Rock	1,107	1,304	1,240	1,334	1,395	1,395	1,395
Total	25,949	30,559	32,990	36,632	40,019	41,716	43,433

Source: WI Dept. of Administration

Level-of-Service

The travel demand forecasting model process determines the level-of-service for streets within the planning area by incorporating land use, population, and traffic volume data.

Level-of-service (LOS) is one of the key indicators used to identify deficiencies in the system. LOS is determined through measuring the results of either the Base 2010, for existing condition, or Future Year 2050, for either committed or planned conditions, model volumes with the average daily traffic (ADT) thresholds of each ADT class. The ADT thresholds are LOS and capacity calculations based on: (1) the Transportation Research Board's (TRB) 2010 Highway Capacity Manual (HCM 2010) and (2) best practices conducted by other states and MPOs around the country. Each ADT threshold represents the maximum allowable limit for an LOS grade. LOS is labeled A through F and is described in Table 17.

Table 17: LEVEL-OF-SERVICE

	LOS	LOS (Numeric Value)	Description
Best ↓ Worst	A	1.01 to 2.00	Not congested. Free flow - Users unaffected by one another. Free to maneuver and select desired speed. High level of comfort.
	B	2.01 to 3.00	Not congested. Stable flow – Users notice the presence of other drivers. Free to select desired speed, but slight decrease in maneuverability. Comfort slightly less, due to increased presence of other drivers.
	C	3.01 to 4.00	Minimal congestion. Stable to beginning of high-density flow - Other drivers affect your speed and force you to maneuver carefully. Comfort begins to decline noticeably. Point where other drivers being to significantly impact your driving.
	D	4.01 to 5.00	Moderate congestion. High-density, stable flow - Speed and maneuvering are severely restricted. Comfort level is poor. Point where a minimal increase in traffic will cause problems.
	E	5.01 to 6.00	Severe congestion. Operating at or near capacity level. All speeds are reduced to a uniform low value. Maneuvering is very difficult. Comfort level are extremely poor, driver frustration levels are generally high. Point where small increases in traffic or minor problems in the traffic stream will cause backups.
	F	> 6.00	Extreme congestion. Forced or break-down flow. Characterized by stop and go traffic. Created when the amount of traffic approaching a point is greater than the capacity that can pass that point.

Source: WisDOT

In the past, the Wisconsin DOT recommended a LOS of 4.0 for roadways in the State Trunk Highway System, which include portions of Highway 26, 14, 11, 51 and 59 in the MPO. Recently, WisDOT made the decision to allow higher levels of congestion on some portions of the State Trunk Highway System, so they developed LOS Thresholds. In the 2002 *Facilities Development Manual*, it states:

> *"These thresholds allow higher levels of congestion on some routes than under previous WisDOT policy. To arrive at these thresholds WisDOT had to balance the social, environmental, and dollar costs that would be incurred by using the traditional performance threshold of LOS 4.0 (moderate congestion) against the costs of accepting more congestion on some portions of the State Trunk Highway System".* *Facilities Development Manual. 2002.*

LOS Thresholds indicate the maximum desirable LOS, or congestion level, by roadway type in both rural and urban areas. The threshold system recognizes that the level of desirable congestion changes with a population's size and a roadways functional classification.

Table 18: LEVEL-OF-SERVICE THRESHOLDS

(In MPO Planning Area)	Rural & Small Urban Areas	Urbanized Areas
	Population ≤ 50,000	Population ☐ 50
C2020 Backbone Routes *(I-39)*	4.0	4.0
C2020 Connector Routes *(HWY 26 & 11)*	4.0	4.5
Other Principal Arterials	5.0	5.5
Minor Arterials	5.0	5.5
Collectors & Local Function Roads	5.0	5.5

Source: WisDOT, Facilities Development Manual, 2015

Two-Way LOS Thresholds						1 - One-way LOS thresholds
Facility Type	**ADT Class**	**Average Annual Daily Traffic (AADT)**				**ADT Class Description**
		LOS C (4.0)	**LOS D (5.0)**	**LOS E (6.0)**	**LOS D (> 6.0)**	
		Minimal Congestion	**Moderate Congestion**	**Severe Congestion**	**Extreme Congestion**	
		(upper limit)	(upper limit)	(upper limit)	(upper limit)	
Urban Freeway, 55 mph						
4-lane	1	53,800	74,900	88,500	> 88,500	Divided facility, interstate or freeway, area is densely urban, 2 lanes per direction, unsignalized.
6-lane	2	90,300	122,000	142,200	> 142,200	Divided facility, interstate or freeway, area is densely urban, 3 lanes per direction, unsignalized.
8-lane	3	126,900	165,700	180,100	> 180,100	Divided facility, interstate or freeway, area is densely urban, 4 lanes per direction, unsignalized.
Urban Freeway, 65 mph						
4-lane	4	58,800	76,800	91,600	> 91,600	Divided facility, interstate or freeway, area is urban, 2 lanes per direction, unsignalized.
6-lane	5	97,800	124,800	146,300	> 146,300	Divided facility, interstate or freeway, area is urban, 3 lanes per direction, unsignalized.
8-lane	6	136,900	169,000	195,000	> 195,000	Divided facility, interstate or freeway, area is urban, 4 lanes per direction, unsignalized.
Rural Freeway, 65 mph						
4-lane	7	60,100	76,400	89,500	> 89,500	Divided facility, interstate or freeway, area is rural, 2 lanes per direction, unsignalized.
6-lane	8	99,800	124,300	143,600	> 143,600	Divided facility, interstate or freeway, area is rural, 3 lanes per direction, unsignalized.
8-lane	9	139,500	168,300	191,500	> 191,500	Divided facility, interstate or freeway, area is rural, 4 lanes per direction, unsignalized.

Urban Multilane Highway						
4-lane	10	46,000	61,000	72,000	> 72,000	Expressway or urban principal arterial, area is suburban, urban, or densely urban, 2 lanes per direction, unsignalized.
6-lane	11	70,000	93,000	109,000	> 109,000	Expressway or urban principal arterial, area is suburban, urban, or densely urban, 3 lanes per direction, unsignalized.
Rural Multilane Highway						
4-lane	12	47,700	61,200	68,000	> 68,000	Expressway or urban principal arterial, area is rural, 2 lanes per direction.
						Rural major arterial, minor arterial, major collector, minor collector, or local with 2 lanes per direction
6-lane	13	71,900	92,000	102,300	> 102,300	Expressway or urban principal arterial, area is rural, 3 lanes per direction.
						Rural major arterial, minor arterial, major collector, minor collector, or local with 3 lanes per direction
Signalized Arterial						
2-lane Undivided	14	14,200	16,100	17,600	> 17,600	Undivided facility, 1 lane per direction, signalized
1-lane One-Way[1]	15	7,500	8,450	9,300	> 9,300	One-way facility, 1 lane
2-lane TWLTL	16	15,000	16,900	18,600	> 18600	Two-way left-turn lane (TWLTL) facility, 1 lane per direction with additional lane for continuous left-turn movements
2-lane Divided	17	15,000	16,900	18,600	> 18600	Divided facility, 1 lane per direction, signalized
4-lane Undivided	18	20,400	23,300	25,900	> 25,900	Undivided facility, 2 lane per direction, signalized
2-lane One-Way[1]	19	13,900	15,850	17,550	>17,550	One-way facility, 2 lanes
4-lane TWLTL	20	26,300	29,900	33,200	>33,200	Two-way left-turn lane (TWLTL) facility, 2 lanes per direction with additional lane for continuous left-turn movements
4-lane Divided	21	27,800	31,700	35,100	> 35,100	Divided facility, 2 lanes per direction, signalized
6-lane Divided	22	40,900	46,300	51,200	> 51,200	Divided facility, 3 lanes per direction, signalized
3-lane One-Way[1]	23	20,450	23,150	25,600	>25,600	One-way facility, 3 lanes
8-lane	24	53,800	60,800	67,100	> 67,100	Divided facility, 4 lanes per direction, signalized

Divided						
4-lane One-Way[1]	25	26,900	30,400	33,550	>33,550	One-way facility, 4 lanes
Unsignalized Facilities						
Urban Non-Signalized 2-Lane	26	16,100	23,000	30,400	> 30,400	Divided or undivided facility, **urban** principal arterial, minor arterial, collector, or local, 1 lane per direction, unsignalized
Urban Non-Signalized 4-Lane	27	23,100	33,300	44,700	> 44,700	Divided or undivided facility, **urban** principal arterial, minor arterial, collector, or local, 2 lanes per direction, unsignalized
Rural Non-Signalized 2-Lane	28	8,700	15,200	30,400	> 30,400	Divided or undivided facility, **rural** principal arterial, minor arterial, major or minor collector, or local, 1 lane per direction, unsignalized

THE MODEL

In developing the Long Range Transportation Plan and evaluating the potential needs of the MPO for the next 35 years, roughly 30 projects were analyzed to help understand projected transportation needs.

To evaluate how recommended projects would affect projected 2050 congestion levels in the MPO the travel demand model was developed in three steps that build upon one another. The steps are as follows: 1) the existing network, 2) the committed network (the existing plus completed and committed projects) and 3) the full-build network (the existing, plus completed and committed, plus planned projects). The existing network evaluates the effects of 2001 traffic volumes on the 2001 road network. The committed scenario is a prediction of what the road network will look like in 2035 should no further improvements occur, outside of those that are identified as committed. The 2035 committed scenario attempts to indicate how the predicted traffic volumes combined with minimum expansion projects will impact congestion levels. The committed network incorporates into the model's road network all major road projects completed between 2005 and 2015, the expansion and new roadway projects identified in the first three years of the current TIP (2016-2021), and the expansion of I-39/90. The full-build network begins with the street network developed in the committed scenario and then adds to the network the major capacity expansion projects recommended for construction within the MPO. The current deficiency levels help illustrate where congestion relieving measures are needed, while the expected deficiencies indicate where they will be needed, aiding in the development of recommended projects.

Study Area Boundary

The study area boundary for the *2015-2050 Long Range Transportation Plan* is consistent with the planning area boundary depicted in the Introduction. The study area encompasses the Janesville and Milton urban area and includes parts of Harmony, Janesville, La Prairie, Milton and Rock townships. For highway planning purposes, Rock County is subdivided into 399 traffic analysis zones (TAZs). The TAZs are generally defined by census boundaries, and physical boundaries; zone boundaries typically fall along arterials or natural physical boundaries.

Existing Network & Deficiencies

The existing scenario represents the road network as it was in 2010 (base year), and is used to give an idea of the current congestion levels throughout the MPO. Based on 2010 traffic counts and the roadways capacity, a level-of-service (LOS) was calculated which defined the deficiency level of the segment. A full discussion of the methodology used to calculate deficiency levels can be found in the Appendix.

Currently, LOS for I-39/90 is shown as uncongested for two reasons: (1) the model is a weekday model and does not account for peak hour nor weekend and (2) capacity and LOS calculations are different in this model compared to the previous model used in the 2005 Plan, therefore comparisons

cannot be made. All of the deficient and severely deficient segments are listed in Table 19, and were considered in the analysis, regardless of their jurisdictional location. The construction of the STH 26 Bypass resolved deficiency #2 at Milton and Kettering and deficiency #3 at N. Milton and John Paul Road.

Table 19: 2010 BASE LEVEL OF SERVICE DEFICIENCIES

No Build Level of Service (2010 Base Model)		
	Deficiency	Length
1	Milton Ave/STH 26	Memorial Dr to Mt. Zion Ave.
2	Milton Ave/STH 26 northbound	NB Kettering to John Paul Rd./CTY Y
3	N. Milton/Bus STH 26	CTH N to N. John Paul Rd.
4	USH/STH 11	STH 140 to E. Delavan Dr./E. CTH O

Source: WisDOT

No Build 2050 with Committed Projects

The No Build 2050 network refines the 2050 congestion level prediction by incorporating into the model the new and expansion projects that have been completed since the existing base year network (2010) and those projects that have funding secured for construction in the coming years. The transportation model was run with the existing plus committed projects and the traffic volumes expected in 2050 to develop the deficiency levels that can be expected in 2050, which is shown in Figure 4. Additional project scenarios were generated to enable sufficient evaluation and analysis of recommended projects, in addition to committed projects, of the effects on traffic deficiency levels. Tables 18-22 list the recommended projects for each of the four modeled traffic forecast (No Build 2050, Package 1, Package 2, and Package 3), and Figures 4-8 provide an illustration of the deficiencies in each scenario.

Table 20: NO BUILD 2050 TRAFFIC MODEL WITH COMMITTED PROJECTS

No Build Scenario 2050			
	Committed Project	**Length**	**Project type**
1	I-39/90 (including Ryan Road Underpass)	Stateline to Madison	Expansion
2	CTH G		Reconstruction to rural 2 lanes with wide shoulders
3	HWY 14		Resurfacing, signalization, etc.
4	Milwaukee Street	Main to Locust	One-way conversion to two-way
5	Austin Road	Court to Mineral Point	Reconstruction rural 2 lane to urban 2 lane with bike lanes
6	Ruger Avenue	Wright Rd. to USH 14	Reconstruction rural 2 lane to urban 2 lane cross section undetermined.
7	Progress Drive	Venture Ct. Terminus to STH-11 bypass	Road extension; Right in, right out onto STH-11

Table 21: NO BUILD 2050 LEVEL OF SERVICE DEFICIENCIES

No Build Level of Service (2050)		
	Deficiency	Length
1	Milton Ave/STH 26	E. Memorial Dr. to Mt. Zion Ave.
2	Milton Ave/STH 26	Mt. Zion to Randolph/Kennedy Rd.
3	USH 14	Evansville to USH 51
4	USH 51/Centerway	N. Main St. to N. Parker Dr.

Other impacts:

Milton Ave/STH 26 NB from Kettering to John Paul Rd/CTH Y

- LOS ABC due to reclassification from Urban Principal Arterial to Expressway

N Milton Rd/Bus STH 26 from CTH N to N John Paul Rd

- LOS ABC due to addition of STH 26 to the East

USH 14/STH 11 from STH 140 to E Delavan Dr/ E Co Rd O

- LOS ABC due to decreases in households and employment in adjacent TAZs leading to reduced volumes

Table 22: PACKAGE 1 TRAFFIC MODEL WITH COMMITTED AND RECOMMENDED PROJECTS

Package 1: No West side bypass			
Committed projects from No Build Scenario 2050 NO West side bypass from STH-11 to US-14			
	Recommended Project	**Length**	**Project type**
8	Milwaukee Street	Main to Ringold	Reconfiguration from one way to 2 lanes with center left turn lane
9	Court Street	Linn St. to Ringold	Reconfiguration from one way to 2 lanes plus bike lanes
10	Austin Road	Mineral Point to Memorial	Rural 2 lane to urban 2 lane with bike lanes
11	West Memorial Road	Timber Lane to Proposed west side bypass	Reconstruct to 2 lane
12	Waveland road	extension to County Highway A	Road extension
13	North Bypass USH-51	From HWY 14 onto Kidder Rd then CTH M and then I-39/90 Diamond interchange	Northern bypass. 2 to 4 lane divided HWY with limited access
14	USH-51 North	Black Bridge to USH 14	Road widening to 4 lane urban cross section
15	5 Points	Intersection of Center, Court, & Milwaukee	Grade separation
16	Venture Drive	to South highway 51	Road extension
17	USH-51 & STH-11	Intersection of of USH-51 & USH-11	Grade separation
18	Innovation Drive	Innovation Drive to HWY-51	Road extension
19	Dollar General road	S. Industrial Park (SHINE)	"New Road"
20	Todd Drive	Delavan to Conde Street	Road extension
21	Conde Street/Read Road	Conde to Read Rd/Read Rd to Delavan Drive	Road extension from Conde to Read and upgrade from Read to Delavan
22	USH 14	USH 51 to Wright Rd	Reconstruct to 6 lane urban cross section
23	USH 14 RR Crossing	Intersection of HWY 14 and Kennedy Dr	Grade separation
24	Kettering St	To Kennedy Rd/Brentwood Dr	Road extension
25	Sandhill Rd	from Wright to Deerfield	Road extension
26	McCormick Dr	Intersection of McCormick & Huntinghorne to Wright Rd	Road extension
27	N. Wright Road	from Rotamer Road to STH 26	Road extension
28	Wuthering Hills	from Mackinac to HWY 14	Road extension
29	Randolph Rd	Connection to Wuthering Hills Dr	Road extension (constructed in conjunction with Wuthering Hills extension)
30	HWY 11/14	From Wright road to CTH O	Reconstruction to 4 lanes
31	Harmony Town Hall Road	From HWY 14 to HWY 26	Widening to 4 lane urban cross section
32	HWY 11/14	Janesville from CTH O to I-43	Expansion to new 4 lane expressway
33	Milton-Shopiere	From E HWY 11/14 to Townline Rd.	Expansion from 2 lane rural to 2 lane limited access divided highway
34	E. Klug Road	Old 26 to I-39/90 at proposed CTH M interchange	Road extension
35	Sunset Drive	1) Intersection of Sunset & Lucas Lane to N. John Paul Road and 2) Terminus to old 26/Janesville St. (City of Milton)	Road extension
36	John Paul and Madison Ave Installation	Intersection of John Paul (CTY Y) and Madison (City of Milton)	Traffic signal Installation
37	Crossing at John Paul Rd (City of Milton)	WSOR Railroad Crossing on John Paul Rd	Grade separation
38	Hilltop Dr (City of Milton)	Extend to Townline Rd	Road extension

The Package 1 Result shows the following:

- Lane expansions on USH 14 (Projects #22 and #30) and USH 51 (Project #14) reduced travel on STH 26 leading to improved LOS on STH 26 from Mt Zion Ave to Black Bridge Rd
- IH 39/90 / STH 26 Interchange: STH 26 NB ~75 AWDT above LOS D threshold
- CTH M / IH 39/90 Interchange (Project #13) and E Klug Rd extension (Project #34) led to ~450 AWDT per direction above LOS D threshold on CTH M
    - Not resolved in LRTP Package 2 or 3

Table 23: PACKAGE 2 WITH COMMITTED AND RECOMMENDED PROJECTS

Package 2: Includes West Side bypass and new connection STH 11 to STH 11/14 East			
Committed projects (see No Build above) Projects from Package 1			
	Recommended Project	**Length**	**Project type**
#	West side Bypass	From 11 to 14	New Road/bypass
#	HWY 14	From USH 51 to West Side Bypass	Expansion to 4 lanes
#	HWY 11 bypass connection	From I-39/90 Avalon Rd interchange to 11/14 East at CTH O	Extension

The Package 2 Result shows the following:

- West side bypass and lane expansion (Projects #38 and #39) improved LOS on USH 14 from bypass to USH 51
- West side bypass (Project #38) and HWY 11 bypass (Project #40) improved LOS on Milton Ave./STH 26 from E Memorial Dr to Randolph Rd
- USH 14 expansion (Project #39) caused trips to use USH 51 NB instead of IH 39/90 leading to improved LOS at the IH 39/90 / STH 26 interchange

LRTP Package 3

Package 3 reconfigures select roads in the City of Janesville from four lane, undivided roadways, to two driving lanes, and a center two-way left turn lane (TWLTL). **There were no major impacts to the reconfigured roadways or to the transportation network.**

Table 24: PACKAGE 3 - FULL BUILD/ALL PROJECTS

Package 3: Road Diets			
Committed projects (See No Build) Projects from Package 2			
	Recommended Project	**Length**	**Project type**
#	E. Milwaukee	Garfield to Wright Road	Conversion from 4 lane undivided to 2 driving lanes, TWLTL, and bike lanes
#	W. Court	Pearl to Waveland	Conversion from 4 lane undivided to 2 driving lanes, TWLTL, and bike lanes
#	E. Memorial	Milton to Harding	Conversion from 4 lane undivided to 2 driving lanes, TWLTL, either parking or bike lanes

Figure 4: MODELED PROJECTS

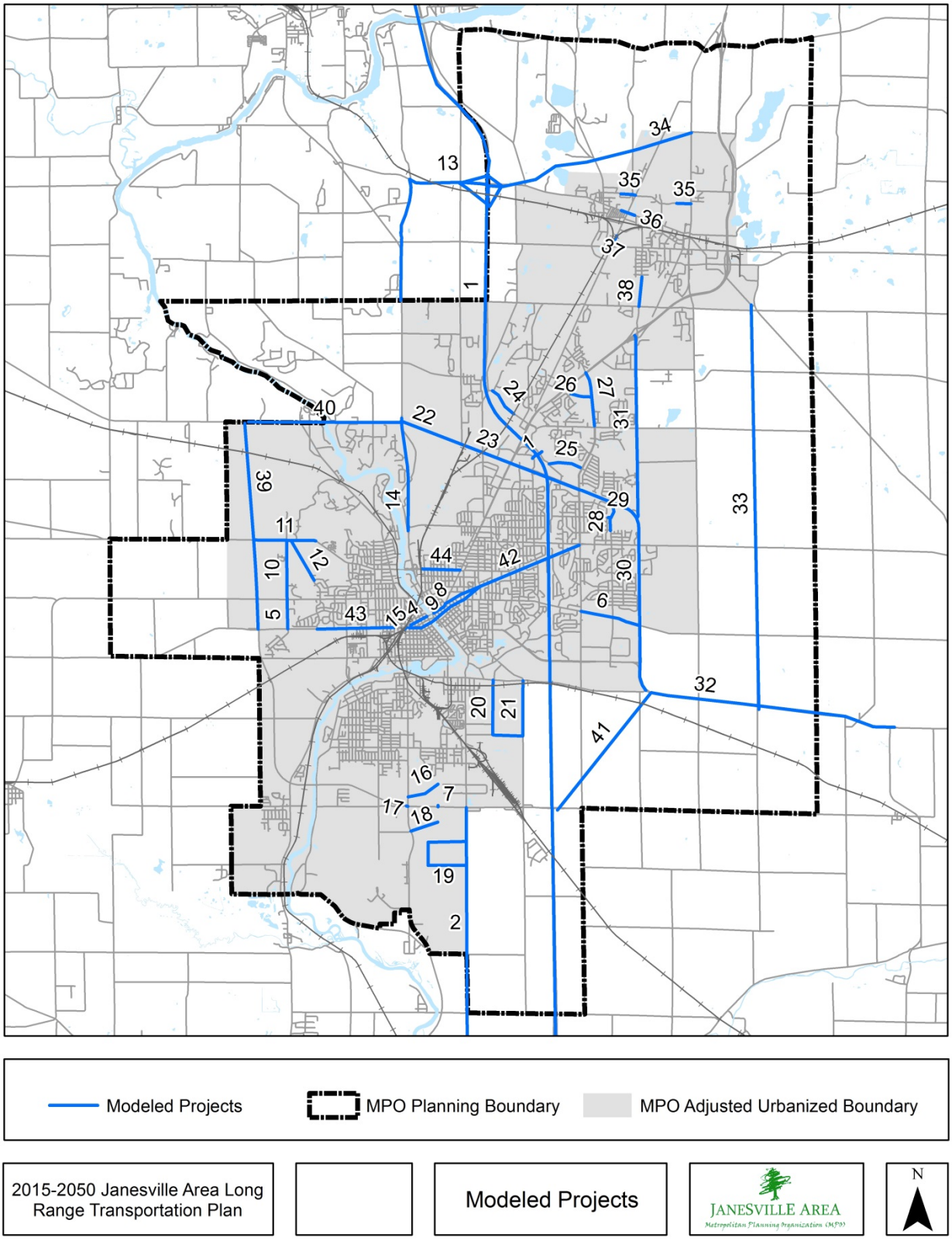


Figure 5: JANESVILLE AREA BASE 2010 LEVEL OF SERVICE

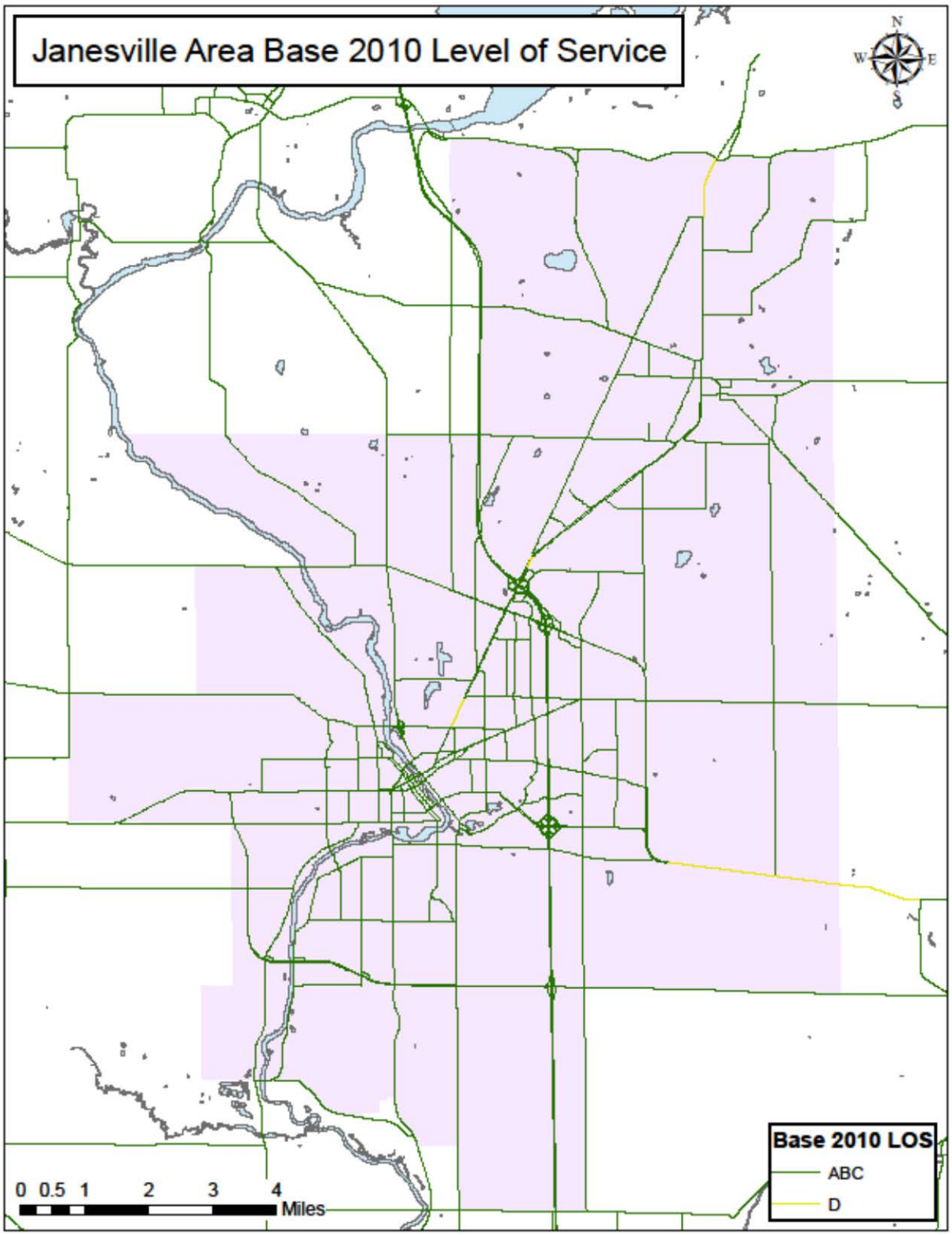


Figure 6: JANESVILLE AREA NO-BUILD 2050 LEVEL OF SERVICE

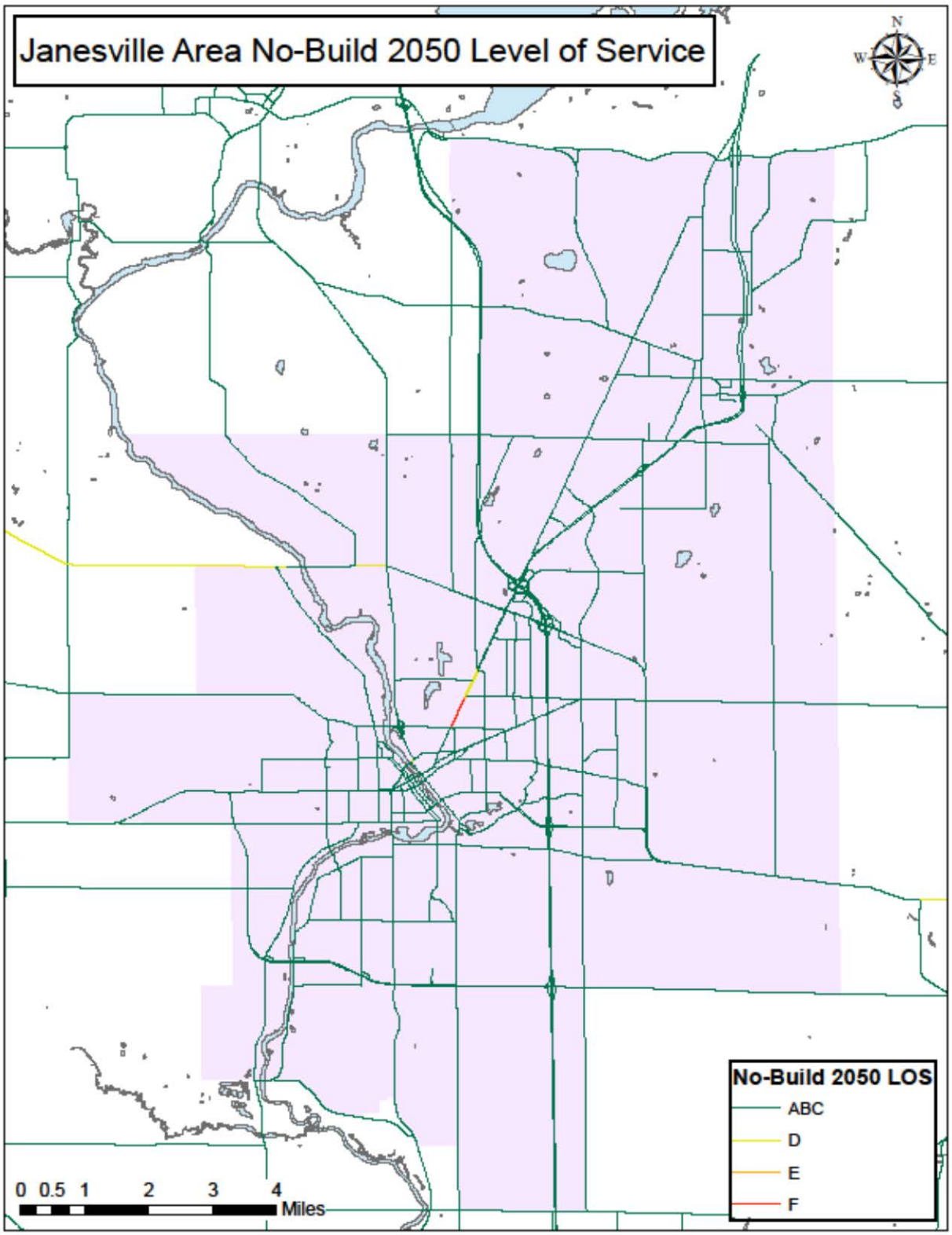


Figure 7: JANESVILLE AREA LRTP PACKAGE 1 2050 LEVEL OF SERVICE

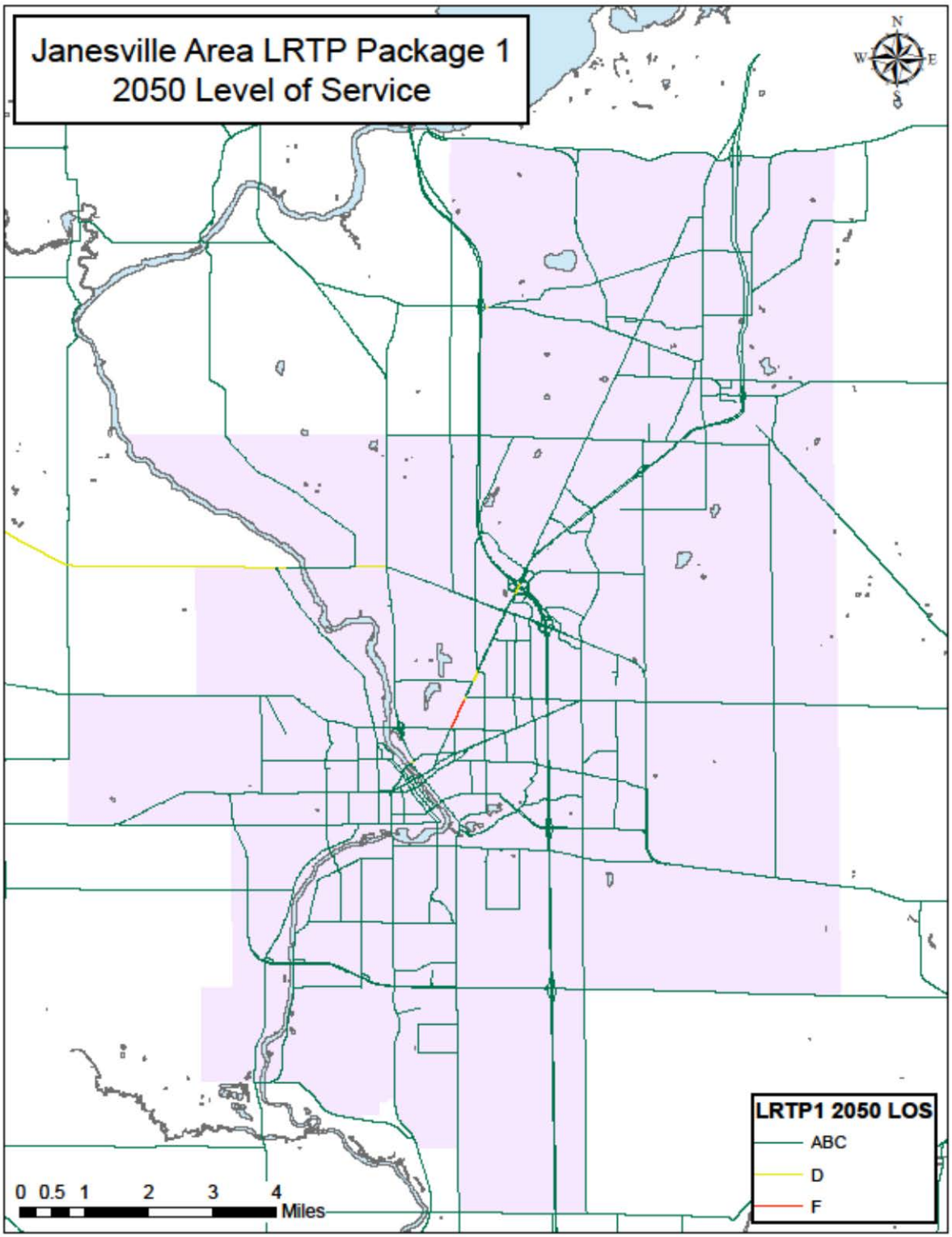


Figure 8: JANESVILLE AREA LRTP PACKAGE 2 2050 LEVEL OF SERVICE

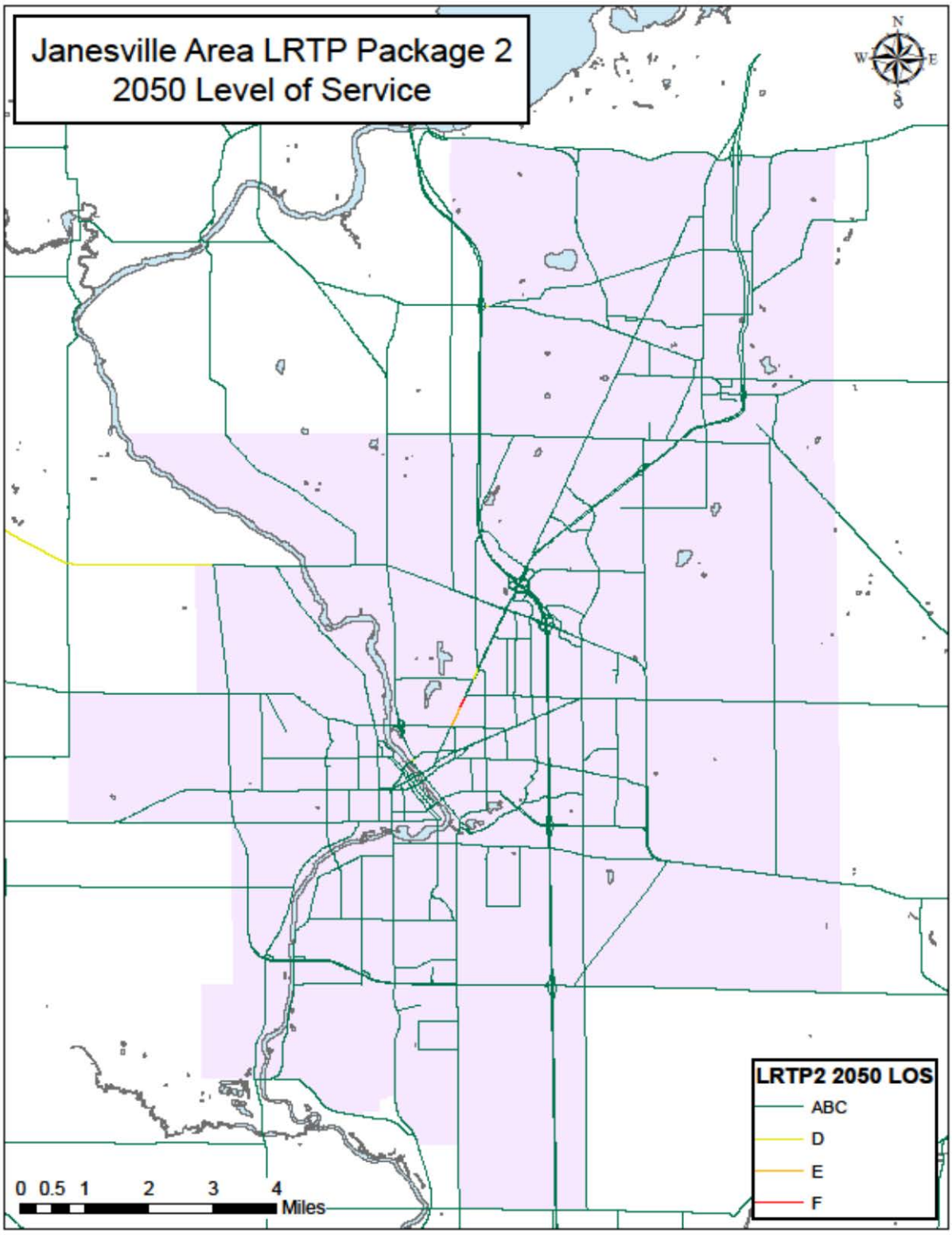
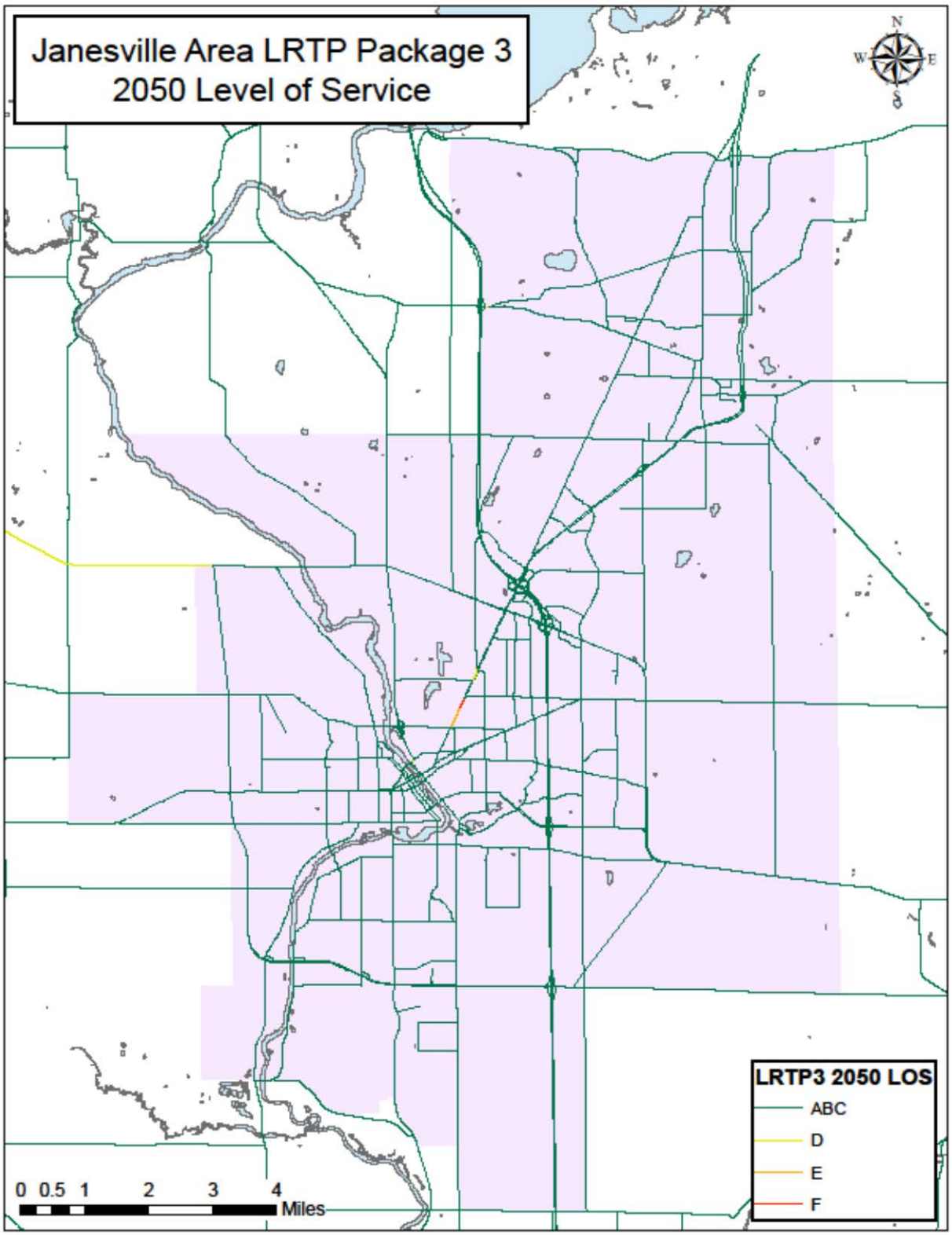


Figure 9: JANESVILLE AREA LRTP PACKAGE 3 2050 LEVEL OF SERVICE



5. PROPOSED STREET AND HIGHWAY FACILITIES

The travel forecast modeling process predicts where congestion problems are likely to occur on the existing street network, given projected socioeconomic trends. As demonstrated in the previous chapter, there are few areas forecasted to experience congestion in the No Build 2050 scenario. The proposed street and highway facilities are primarily preservation projects and new local road connections to accommodate future growth.

> ***IMPORTANT***
> The MPO, and all those jurisdictions participating within its boundary, realize that needs may change over time. The final prioritization and implementation schedule will be based upon the MPOs current needs, and funding availability. In addition, the recommended projects may be subject to the requirements of the National Environmental Policy Act (NEPA), which may also affect the implementation of the projects. The timelines shown, funding sources, projects scopes and the projects themselves may change significantly, projects may be added and deleted between the time this plan is published and the implementation of projects.

ENVIRONMENTAL CONSULTATION

The MPO conducted environmental consultation with state and federal resource agencies for the Streets & Highways Section in early 2016. See the **Environmental Consultation Section** of this plan for general and specific concerns regarding natural, cultural, and historic resource impacts. The **Environmental Consultation Section** is intended to provide a planning level analysis of resources, and is not intended to be an exhaustive analysis.

SIGNIFICANT COMMITTED PROJECTS

The purpose of listing the committed projects below is to show the major infrastructure improvements that will address many of the transportation concerns in the Plan over the next six years. Significant Committed projects are projects within the MPO planning area that are identified in the MPO's 2016-2021 TIP or the project has been committed to by one of the MPO jurisdictions. Project costs are listed as they are reflected in the TIP, and therefore these projects are fiscally constrained.

Table 25: SIGNIFICANT COMMITTED PROJECTS

Project #	Project	Extent		Funding			
Significant Committed Projects							
#	**Project**	**Extent**	**Sponsor**	**Federal**	**State**	**Local**	**Total**
1	Austin Rd.	lanes	COJ	$ 1,634		$ 417	$ 2,051
2	Progress Dr. connection	Right in, right out turn to STH 11	COJ			$ 250	$ 250
3	Sharon Rd. Bridge	Bridge replacement	COJ	$ 618		$ 154	$ 772
4	Milwaukee St. Bridge	Bridge replacement	COJ	$ 1,418		$ 372	$ 1,790
5	CTH G	Reconstruction, includes Dollar General improvements	COJ, RC, WIS		$ 1,000	$ 1,001	$ 2,001
6	Ruger Ave.	Reconstruction: Wuthering Hills to USH 14 Urban 2 lanes	RC, COJ	$ 1,306		$ 1,066	$ 2,372
7	I-39/90 Expansion	Stateline to Madison, including Ryan Rd. underpass	WIS	$ 5,302	$115,956		$121,258
8	USH 14	Reconstruction: Lexington to Pontiac	WIS	$ 34	$ 1,891		$ 1,925
9	4 Mile Bridge	Bridge replacement (with expansion to 4 lanes)	WIS	$ 10,000	$ 10,000		$ 20,000

#1 Austin Road: West Court to Mineral Point
Reconstruction and expansion of Austin Road from West Court Street to Mineral Point from rural road to urban cross section with two driving lanes, bike lanes, and one lane of parking. Committed funding (STP-Urban) scheduled for construction year 2017.

#2 Progress Drive Connection
Construction of right in/right out connection from Progress Drive to STH 11. Committed funding (local only) scheduled for construction year 2017.

#3 Sharon Road Bridge
Replacement of Sharon Road Bridge. Committed funding (Federal Bridge) scheduled for construction year 2017.

#4 Milwaukee Street Bridge
Replacement of Milwaukee Street Bridge. Committed funding (Local Bridge) scheduled for construction year 2018.

#5 CTH G Reconstruction
Reconstruction of CTH G from STH 11 to Inman Parkway in Beloit to rural county highway with wide shoulders. Includes Transportation Economic Assistance (TEA) funded upgrades related to development of Dollar General distribution facility. Committed project scheduled for construction years 2015-2016.

#6 Ruger Avenue: Wright Rd. to USH 14
Reconstruction and expansion of Ruger Avenue from Wright Road to USH 14 from rural road to urban. Cross section undetermined. Committed funding (STP-Urban) scheduled for construction year 2018.

#7 I-39/90 Reconstruction and Expansion
Committed project to expand Interstate 39/90 from four lanes to six lanes from IL Stateline to Madison. Project includes sound barriers along sections in Janesville and new east-west underpass connection at Ryan Road. Committed project scheduled for construction years 2015-2019.

#8 USH 14: Lexington to Pontiac
Reconstruction of USH 14 from Lexington Avenue to Pontiac Drive from rural roadway to an urban cross section. Committed funding (Federal & State) scheduled for construction year 2020-2021.

#9 Four Mile Bridge
Replacement of USH 14 Four Mile Bridge over the Rock River. Committed in 2011 but delayed until after I-39/90 reconstruction. *MPO recommends capacity expansion*.

RECOMMENDED PROJECTS

The recommended projects were drawn from several sources including: the *Rock Renaissance Area Implementation Strategy (ARISE),* 2016-2021 Transportation Improvement Program, State, County, and local jurisdictions, and the results of the transportation model.
Each project has one or more identified sponsors in the tables, which are abbreviated below.

COJ	City of Janesville
COM	City of Milton
TOM	Town of Milton
TOR	Town of Rock
TOH	Town of Harmony
TOJ	Town of Janesville
RC	Rock County
WIS	State of Wisconsin

Planned

The MPO realizes that needs and priorities may change over the course of this 35-year plan. Therefore, the construction dates shown within this plan are tentative. The MPO's actual needs and funding availability will govern when recommended projects are constructed.

Planned preservation projects include the reconstruction, rehabilitation, resurfacing, and reconditioning of roadways and bridges, as well as signal installation. Capacity expansion projects include adding travel lanes, or the construction of a new alignment to provide additional capacity or access. Expansion projects also include upgrading a roadway from a rural design to an urban design. Some of the preservation projects are also intended to address safety concerns through rebuilding the existing roadway. The capacity expansion projects have the potential to address safety by addressing congestion issues on existing corridors. The alignments shown are for illustrative purposes only. Early in the design phase, the responsible jurisdiction will provide the final alignment.

Table 26: PLANNED PROJECTS

Planned							
#	**Project**	**Extent**	**Sponsor**	**Federal**	**State**	**Local**	**Total**
		City of Janesville					
10	Milwaukee St.	Major rehab River to Locust	COJ	$ 2,839		$ 710	$ 3,549
11	Court St.	One to two way traffic conversion: Linn to Atwood or Ringold	COJ			$ 274	$ 274
12	Austin Rd.	Reconstruction: Mineral Point to Memorial	COJ	$ 3,850		$ 962	$ 4,812
13	W. Memorial	Reconstruction: Timber Lane to 1,800 Feet west	COJ	$ 4,044		$ 101	$ 4,145
14	Waveland Rd.	Extension to CTH A	COJ			$ 3,195	$ 3,195
15	Venture Dr.	Extension to USH 51	COJ			$ 3,862	$ 3,862
16	Innovation Dr.	Extension to USH 51	COJ			$ 1,783	$ 1,783
17	New Road	Serve future industrial development	COJ			$ 6,313	$ 6,313
18	Todd Dr.	Extension from Delavan to Conde St.	COJ			$ 3,454	$ 3,454
19	Conde St.	Extension to Read Rd., upgrade Read intersection to Delavan	COJ			$ 5,348	$ 5,348
20	Kettering St.	Extension from Kennedy Rd. to N. Brentwood Dr.	COJ			$ 2,080	$ 2,080
21	Sandhill Rd.	Extension to Deerfield Dr.	COJ			$ 2,671	$ 2,671
22	McCormick	Extension to Wright Rd.	COJ			$ 1,621	$ 1,621
23	Wright Rd.	Extension to John Paul Rd.	COJ			$ 6,677	$ 6,677
24	N. Wuthering Hills Dr.	Extension to USH 14	COJ			$ 2,337	$ 2,337
25	Randolph Rd.	Extension Holly Dr. to Wuthering Hills Dr.	COJ			$ 238	$ 238
		Milton					
26	Sunset Dr.	Extension Lucas Ln. to John Paul Rd.	COM			$ 1,192	$ 1,192
27	Sunset Dr.	Extension to Old STH 26	COM			$ 1,192	$ 1,192
28	Traffic Signal	John Paul Rd. and Madison	COM			$ 150	$ 150
29	Hilltop	Extension to Townline Rd.	COM			$ 2,575	$ 2,575
		Township					
30	Townline Rd.	Reconstruction USH 51 to Henke Rd.	TOM, TOH, COM			$ 12,276	$ 12,276
31	Harmony Town Hall Rd.	Reconstruction: widen to urban 4 lane USH 14 to STH 26	COJ, TOH	$ 14,991		$ 3,748	$ 18,738
32	Avalon Rd.	Reconstruction: River Rd. to S. Oakhill	COJ, TOR	$ 5,366		$ 1,342	$ 6,708
		Rock County					
33	CTH F	Reconstruction USH 14 to Edgerton (partially funded)	RC	$ 13,367		$ 3,342	$ 16,709
		State of Wisconsin					
34	USH 51	Reconstruction: Court to Joliet	WIS		$ 8,103		$ 8,103
35	USH 51	Reconstruction: STH 11 to Beloit city limits	WIS		$ 44,991		$ 44,991
36	Milton Ave./STH 26	Reconstruction: Memorial to Kennedy/Randolph	WIS		$ 8,988		$ 8,988

#10 West Milwaukee Street major rehabilitation from River Street to Locust. Conversion of one-way to two-way may occur as part of the project or as a separate project. Listed in 2016-2021 TIP as an illustrative STP-Urban project. Tentative 2020 design year.

#11 Court Street one to two-way traffic conversion: Linn to Atwood or Ringold. This project was studied and included in ARISE but the project does not have committed funding

#12 Austin Road: Mineral Point to Memorial
Reconstruction and expansion of Austin Road from Mineral Point Avenue to Memorial Drive from a rural roadway to an urban cross section. Cross section undetermined but recommended to include bike lanes. Potential future STP-Urban project. Construction year undetermined.

#13 W. Memorial Drive: 950' West of Timber Lane to Timber Lane
Reconstruction and expansion of W. Memorial Drive from Timber Lane to approximately 950' west of Timber Lane. Reconstruct from rural roadway to undetermined urban cross section. Potential future STP-Urban project.

#14 Waveland Road Extension
Extend Waveland Road from current terminus to CTH A. No funding identified.

#15 Venture Drive Extension
Extend Venture Drive from current terminus to USH 51. No funding identified.

#16 Innovation Drive Extension
Extend Innovation Drive from current terminus to USH 51. No funding identified.

#17 New Road
Potential new road construction to serve future industrial development in Janesville. Road located south of STH 11 and connecting to CTH G. Possible Transportation Economic Assistance (TEA) Project.

#18 Todd Drive Extension
Extension of Todd Drive from Delavan Drive to Conde Street. New RR crossing approval needed. No funding identified.

#19 Conde Street Extension
Extension of Conde Street from current terminus to Read Road. Upgrade Read Road from intersection to Delavan Drive to accommodate increased truck traffic. No funding identified.

#20 Kettering Street Extension
Extension of Kettering Street from Kennedy Road / Brentwood Drive to dead end west of Whitney. New RR crossing approval reeded. No funding identified.

#21 Sandhill Road Extension
Extension of Sandhill Road from current terminus west of Wright Rd. to Deerfield Drive. Recommended to include bike lanes. No funding identified.

#22 McCormick Drive Extension
Extension of McCormick Drive from current terminus at STH 26 to future Wright Road. No funding identified.

#23 Wright Road Extension
Extension of Wright Road from current terminus north of Rotamer Road to STH 26 overpass. Recommended to include bike lanes. No funding identified.

#24 N. Wuthering Hills Drive Extension
Extension of Wuthering Hills Drive from current terminus to USH 14. No funding identified.

#25 Randolph Road Extension
Extension of Randolph Road from current terminus at Holly Drive to future Wuthering Hills Drive. No funding identified.

#26 & #27 Sunset Drive Extension
Extension of Sunset Drive in two separate segments: from Lucas Lane to John Paul Road and east termini to Old STH 26. No funding identified.

#28 Traffic Signals at John Paul Road and Madison Ave.
Possible HSIP Project.

#29 Hilltop Road Extension
Extension of Hilltop Road from terminus to Townline Road. No funding identified.

#30 Townline Road Reconstruction
Reconstruct Townline Road from USH 51 to Henke Road to higher classification rural roadway that can withstand increased traffic. No funding identified.

#31 Harmony Town Hall Reconstruction
Reconstruction of Harmony Town Hall Road from rural roadway to urban four lane from USH 14 to STH 26. No funding identified.

#32 Avalon Road: River to S. Oakhill
Reconstruction and expansion of Avalon Road from River Road to S. Oakhill Avenue from a rural roadway to an urban cross section. Cross section and construction year undetermined. Potential future STP-Urban project.

#33 CTH F Reconstruction: USH 14 to Edgerton
Preservation project to reconstruct CTH F from USH 14 to limits of Edgerton. Partially committed with STP Rural funds, including design funds first obligated in 2007. Full STP Rural funds expected with construction years 2016-2020.

#34 USH 51 Reconstruction: Court to Joliet
Reconstruction of USH 51 from Court to Joliet. This is the MPO's highest priority State Project.

#35 USH 51 Reconstruction: STH 11 to Beloit limits

Reconstruction of USH 51 from STH 11 to Beloit city limits. Project would likely include spot safety improvements. This is the MPO's second highest priority State Project.

#36 Milton/STH 26 Reconstruction (and possible expansion): Centerway to Kennedy/Randolph
Reconstruction of Milton Ave./STH 26 from Centerway to Kennedy/Randolph. Committed by State for tentative 2026 construction year but possible delay. *MPO recommends capacity expansion.*

Proposed or Potential Projects

The following list of projects is not fiscally constrained. This list represents projects that may become planned projects if conditions or expected revenues change. Traffic forecasting suggests USH 14 and USH 51 will not experience enough congestion to warrant expansion. However, if growth projections or travel behavior changes, the MPO recognizes that expansion may be necessary. It is also possible these projects may not be necessary until after this plan's horizon (beyond 2050), such as expansion of Milton Shopiere Road.

Table 27: PROPOSED OR POTENTIAL PROJECTS

Proposed or Potential Projects							
#	**Project**	**Extent**	**Sponsor**	**Federal**	**State**	**Local**	**Total**
37	Kellogg Ave.	Resurfacing: River Rd. to Center Ave.	COJ	$ 680		$ 170	$ 850
38	Conde St. Connection	New connection across General Motors property	COJ			$ 1,958	$ 1,958
39	Milton Shopiere	USH 14 to 59: limited access 2 lane highway	?			$ 45,879	$ 45,879
40	USH 51	Expansion to 4 lane Urban: Blackbridge to USH 14	WIS		$ 30,476		$ 30,476
41	USH 14	Expansion to 4 lane: USH 51 to Rivers Edge Dr.	WIS		$ 34,094		$ 34,094
42	USH 14	Expansion to 4 lane: Rivers Edge Dr. to Evansville (CTY TKM)	WIS		$ 73,532		$ 73,532

#37 Kellogg Avenue: River Road to Center Avenue/USH 51
Resurfacing of Kellogg Avenue from River Road to Center Ave/USH 51. Possible STP-Urban project but no funding is committed. This project has been identified as a substitute if another STP project in the planned list is delayed.

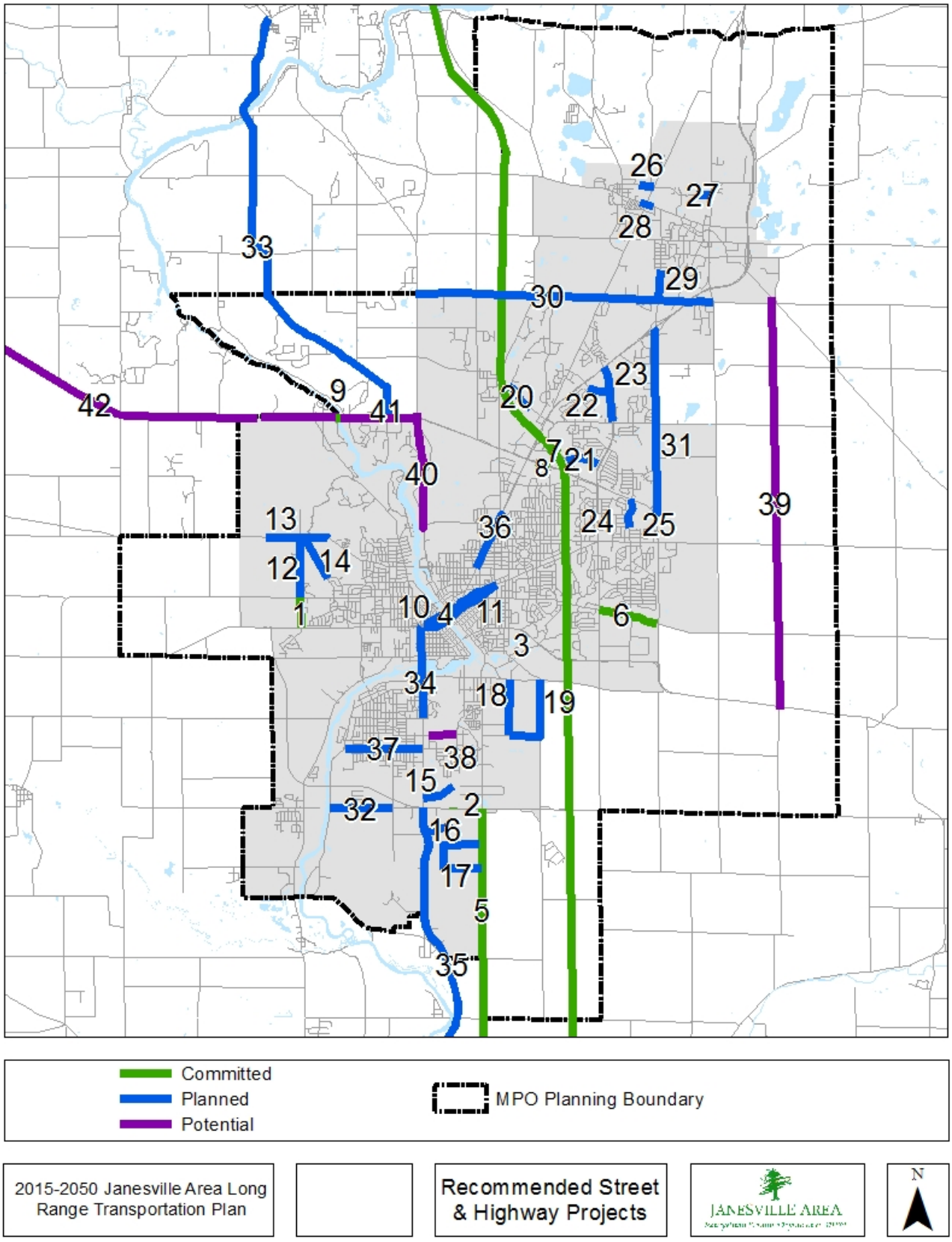
#38 Conde Street Connection
As part of General Motors redevelopment, connect existing east and west segments of Conde Street across GM property. No funding identified.

#39 Milton Shopiere Expansion
Preserve Milton Shopiere Road from USH 14 to STH 59 for potential future expansion as a two lane limited access highway. During the LRTP horizon, limit new access points and preserve adequate right-of-way for future expansion.

#40 USH 51 Expansion
Expansion of USH 51 from a two lane rural roadway to a four lane urban cross section from Blackbridge Road to USH 14. No funding identified.

#41 - #42 USH 14 Expansion
Expansion of USH 14 from USH 51 to Evansville. Segments of this corridor showed deficiency in 2050 year model. Possible Majors Project.

Figure 10: RECOMMENDED STREET & HIGHWAY PROJECTS



PROJECTS UNDER STUDY

There are no projects currently under study. A study determines need, feasibility and once warranted, the projects description, cost, scope and alignment. Projects in this section do not have costs identified yet because they are conceptual in nature.

Recommended for Study

These are state or local projects that require further action, such as a study. Project numbers listed in the description below coincide with Table 28 below and Figure 13: Recommended for Study or Future Consideration.

Table 28: PROJECTS RECOMMENDED FOR STUDY OR FUTURE CONSIDERATION

Recommended for Study or Future Consideration			
#	**Project**	**Extent**	**Sponsor**
1	E. Milwaukee	Safety Conversion: Ringold to Wright Rd.	COJ
2	W. Court	Safety Conversion: Pearl to Waveland	COJ
3	Memorial	Safety Conversion: Bridge to Milton Ave.; Oakhill to N. Washington	COJ
4	Five Points	Grade separation	COJ, WIS
5	Centerway/Main/Parker	Realignment (ARISE)	COJ, WIS
6	USH 14 @ RR	Grade separation	WIS, COJ
7	John Paul Rd. @ RR	Grade separation	WIS, COM
8	North Side Bypass	USH 51 to Kidder Rd. to CTH M, interchange, E. Klug Extension	WIS
9	West Side Bypass	West Court to USH 14 & Avalon to 11/14 new connections	WIS
10	11/14 east	Expansion 11/14 CTH O to I-43	WIS

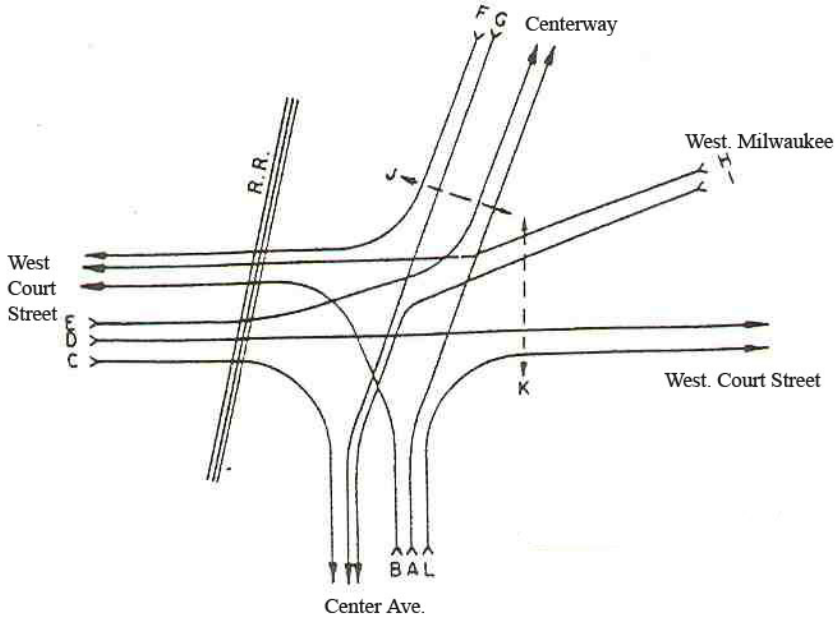
Safety Conversions (1, 2, 3)

Projects 1, 2, and 3 were identified in the Bicycle & Pedestrian Section as roadways that could benefit from a reconfiguration from four lanes to three lanes. These corridors were identified as potential safety conversion projects due to their daily and peak hour traffic, crash rates, number of driveways and intersections, and speeding issues. While these three corridors are recommended for further study, other four lane roadways may benefit from a safety conversion.

Five Points (4)

On the Westside of Downtown Janesville, West Court Street, Centerway, Center Avenue, and West Milwaukee Street converge at this five-point intersection. The redesign of the 5-points intersection has long been identified as a need within long range plans. Figure 12 illustrates the flow of traffic at the 5-points intersection, and how the roadways bisect one another. The presence of USH 51 makes it likely that a larger than average number of non-residents will encounter this intersection. The convergence of such a large number of major streets at unusual angles, in conjunction with the multiple turning movements, can be disorienting for drivers, especially those unfamiliar with the area.

Figure 11: FIVE POINTS INTERSECTION



Adding to the confusion and visual disorder created by the "usual" intersection, are two sets of railroad tracks immediately to the west of the intersection, along West Court Street. One set of tracks serve the Wisconsin & Southern railyard, Union Pacific utilizes the other. The presence of the Wisconsin & Southern railyard means that many of the trains coming through on their tracks have the potential to stop across West Court Street for long periods as cars and goods are loaded and unloaded. The signal at West Court is preemptive in that it can sense the approach of trains and allows waiting cars to move on before the train reaches the roadway and blocks traffic.

The Five Points intersection serves approximately 50,000 vehicles per day. The existing signals were installed in 1987, and are considered antiquated. The signals operate on a preprogrammed timer that dictates the length of each signal. Efforts have been made to minimize the delays drivers experience due to trains, but they have not been entirely successful. Crosswalks along West Court Street, West Milwaukee Street, and Centerway help pedestrians navigate the difficult intersection, but improvements could be made.

Due to the complexity of the intersection, a study of the options and the impact on the surrounding area is a necessary first step. Some of the potential options that may be explored are an overpass of the railroad tracks or a more subtle redesigning of the intersection. In the late 1950's and 1970's the City examined the engineering aspects associated with bringing West Court Street over the railroad tracks. Further study would evaluate the benefits and costs of this option, and the impact on the surrounding properties. Realigning the existing roadway, improving the signage and signalization of the intersection to increase its visual appeal and operating efficiency, and the installation of electronic message boards to alert drivers of train delays are some of the more subtle improvements that may be evaluated.

Realignment of Centerway/Parker Drive & Main Street (5)

The realignment of Centerway/Parker Drive and Main Street is a recommendation contained in Catalyst site 3 of *The Rock Renaissance Area Redevelopment & Implementation Strategy* (ARISE) and shown in Figure 12 below. The intention is to create a gateway to the downtown as well as improve traffic flow. With the realignment, users wishing to enter the downtown continue straight while those continuing on USH 51 turn right.

The travel demand model projected LOS D in 2050 for the segment of Centerway/USH 51 from Main Street to Parker Drive because there is a reduction in lanes for eastbound traffic because one lane turns into a dedicated left turn lane. The travel model did *not* model this proposed improvement. A more detailed project level analysis would be needed to study whether the proposed realignment would relieve projected traffic congestion.

Figure 12: ARISE CATALYST SITE 3

Source: ARISE (SAA Design Group)

Grade Separated Crossing at Kennedy/USH 14 & Railroad Crossing (6)
Approximately 20,000 vehicles per day travel this section of USH 14, and trains blocking the intersection cause major delays and concern for emergency response. USH 14 will serve as a detour route during the I-39/90 expansion, which will increase traffic as well as need to move traffic through the region efficiently. A study would analyze the costs and benefits of a grade separated crossing at this intersection.

Grade Separated Railroad Crossing in Milton (7)
A major issue for the City of Milton is its lack of a grade separated railroad crossing. Railroad tracks run east-west through the city and trains create a barrier to north-south travel. This presents a major concern for emergency vehicle access and response. John Paul Road was identified as one possible location for a grade-separated crossing; however, a study would analyze multiple locations for a crossing.

North Side Bypass (8)
The potential for a North Side Bypass was first identified in the 2005 plan as a project recommended for study. A North Side Bypass would improve regional connectivity north of Janesville as well as west of Milton. The alignment would roughly include the corridor of USH 51, Kidder Road, CTH M, a diamond interchange at CTH M, and an extension of E. Klug Road. Further study would determine whether the bypass would be an upgrade of existing roadways, a new alignment, or a combination of both. This project was included in the travel demand model in Packages 1, 2, and 3. The project led to LOS D on CTH M east of the interchange.

Future Consideration

These are projects that have been studied in the past but are not currently in the study phase. WisDOT suspended these studies due to low statewide priority and lack of funding for construction. WisDOT determined the projects would likely not rank high enough for construction within the next 20 years or more (2035 or later). If WisDOT restarts the studies, the MPO will participate as a stakeholder. The MPO does not have a recommendation for or against the following projects.

West Side Bypass & Avalon interchange to USH 14/STH 11 New Connection (9)

The West Side Bypass was studied as a new north/south corridor extension of STH 11 to USH14. The corridor project purpose is to reduce congestion on USH 14, provide an alternative to USH 14 for freight movement and through traffic, and provide regional connectivity on the west side of Janesville. The connection could also serve as a detour route in the event of a shutdown of I-39/90. A separate new segment, but tied to the West Side Bypass, is a new connection from the Avalon Rd. interchange at STH 11 and I-39/90 extending to 11/14 East. Currently, STH 11 uses I-39/90 as the connection between the Avalon interchange and USH 14/STH 11 East. If the State picks up the West Side Bypass

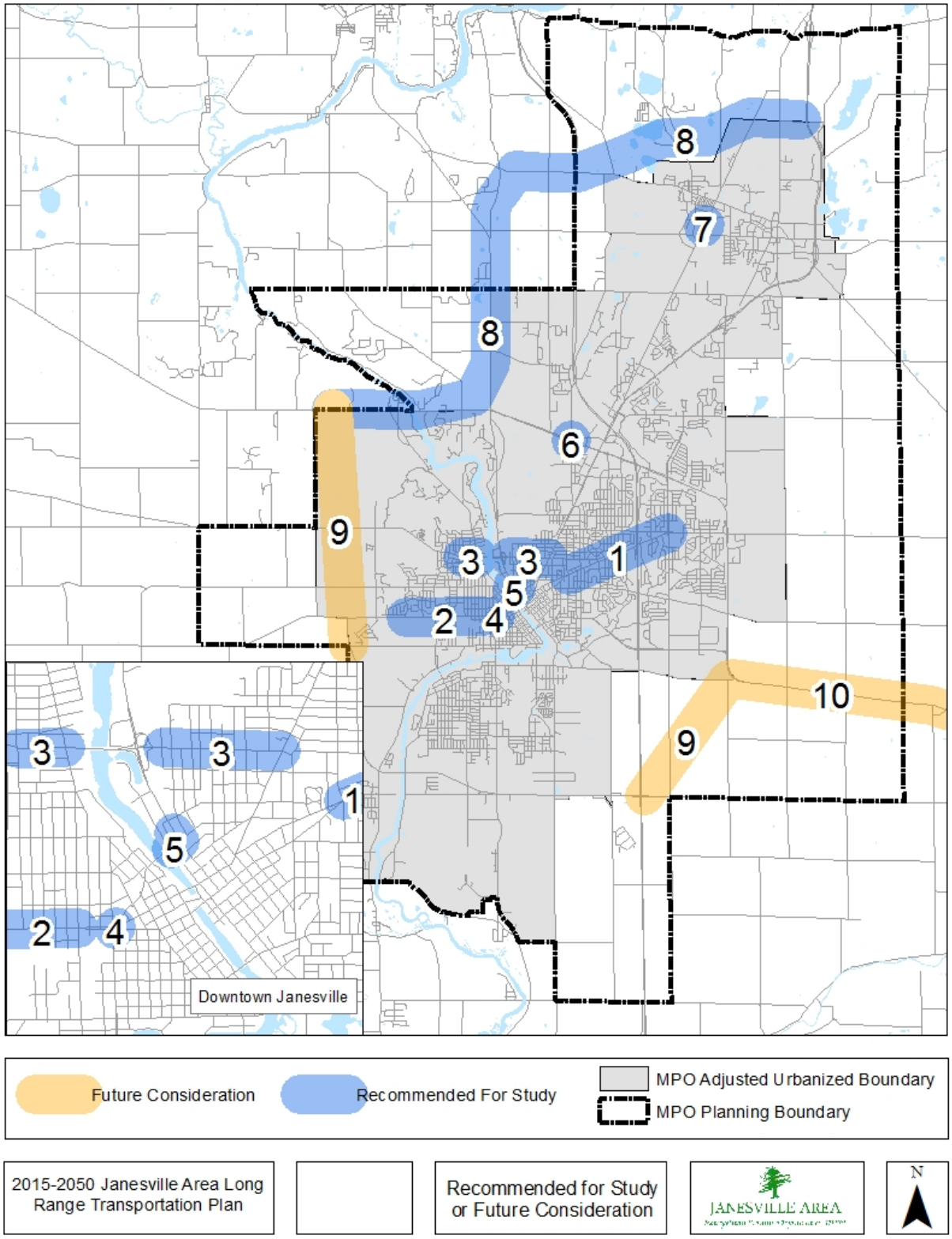
study, the Avalon connection would likely be included in the study.

During the development of the Freight Section of the 2015-2050 LRTP, freight stakeholders indicated a desire for the West Side Bypass to serve manufacturing land uses in the southeast region of Janesville. This issue is described in greater depth in the Freight Chapter.

STH 11/USH 14 Expansion (10)

The East Side Expansion was studied from STH 11/USH 14 on Janesville's east side (near CTH O) to Interstate Highway 43 in Walworth County. WisDOT had started studying the corridor but suspended the study due to its low statewide project rank and limited funding. At the time of the suspension, the study had identified alternative alignments. No analysis has been conducted on the identified alternatives since the suspension of the study.

Figure 13: PROJECTS RECOMMENDED FOR STUDY OR FUTURE CONSIDERATION



6. FINANCIAL PLAN

The type of highway funding resources that can be used to implement the recommendations in this plan come from a variety of programs at the federal, state and local levels. The programs that the MPO has identified as funding sources for the committed and recommended highways projects are briefly described in this section. All estimated revenues and expenditures are given in 2015 constant dollars. WisDOT provided the funding levels estimated to be available over the next 35 years. At the time a project moves into the committed years of the TIP, the project's cost will be reevaluated and the funding method to be used will be revisited. The actual funding source will depend on the current allocation levels. MPO will pursue alternate funding mechanisms, if appropriate, as the design and construction phases of projects in the 2015-2050 planning period approach.

AVAILABLE FUNDING SOURCES

Urban Surface Transportation Program – STP-Urban - (URB) – Federally funded program administered by the state with an 80% federal share and 20% local match. STP-Urban funding provides for a wide range of transportation-related activities and local safety improvements. To qualify, projects must be on roadways functionally classified as collector or higher, and the projects cannot be on roadways that are part of the State Trunk Highway system.

Existing Majors Enumerated for Construction – (MAJ) – Major Project is a state designation that can use federal or state funding for implementation. Major Projects must meet a specific definition and follow a specific process for approval. The Transportation Project Commission and the Legislature must enumerate these projects. Projects designated as a Major Project do not need a local match. The Majors Highway Development Program is for expansion projects greater than 5 miles, or new state highway segments greater than 2 ½ miles.

State Trunk Highway (STH) Preservation – (STH) – State and federally funded program administered by the State, with a variable local match. The majority of projects require no local match. However, some activities may require a local match resulting in a funding split that is project specific. STH funds include "Backbone" and "Non Backbone 3R" funds. Backbone funds can be used on the backbone routes identified in the 2020 plan. Non Backbone 3R (3R) funds can be used on the rest of the state highway system. Backbone and 3R funds can be used for preservation, reconstruction, resurfacing and reconditioning projects. In the LRTP, STH funds cover projects that had a funding source of NHS, IM, STP-SAFE, or FLEX in the TIP. STH funds can be used for reconstruction, resurfacing and reconditioning projects along State Trunk Highways, including bridge projects. The projected allocation is based on a combination of mileage and average spending from years 2009-2014.

State Trunk Highway (STH) Operations and Maintenance – (STH O & M) State program. Funds can be used for operations and maintenance activities associated with State Trunk Highways, including bridge projects.

Local Bridge Improvement Assistance – (BR)- State and federally funded program administered by the state with an 80% federal /state share and 20% local match. Projects must be located within a locally owned public roadway and not connected to the Highway. Additionally, the structure must be

20 feet or greater in width and must not have been constructed or reconstructed in the last 10 years. Counties, cities, villages, and towns are eligible for rehabilitation funding on bridges with sufficiency ratings less than 80, and replacement funding on bridges with sufficiency ratings less than 50. Local jurisdictions submit information to WisDOT to calculate the bridges sufficiency rating. Bridges are rated based on a federally bridge rating methodology, which is designed to measure the relative adequacy of a bridge in terms of structural and safety aspects, serviceability and functional obsolescence, and suitability for public use.

Local Road Improvement Program – (LRIP) – State program with a 50% local match. The program assists local governments with improvements on seriously deteriorating county highways, town roads, city, and village streets. LRIP money can be split between multiple projects, however only 50% of each project's total cost will be funded by LRIP, assuming that their combined federal portions do not exceed the federal allocation. One project substitution is allowed per allocation cycle. LRIP funds must be used within three biennia.

In most cases, the jurisdictions within the MPO use LRIP money for preservation projects. LRIP projects are identified listed in the Transportation Improvement Program

Transportation Economic Assistance (TEA) – The State administered grant program was designed as a rapid response to transportation needs supporting economic development at a 50/50 local match cost. The program is a year-round first come basis with a short turn-around-time of approximately 60 to 90 days. The grant program was created to help fund transportation enhancements specifically on public right away to support economic development in creating new employments, retaining employees, and encouraging private investment in the State.

Connecting Highway Aids – (CHA)- State program with no local match. The CHA program is designed to assist municipalities with the costs associated with the increased traffic and maintenance of roads that connect segments of the State Trunk Highway System. The funds are given as yearly, lump allocations. In Janesville, the Connecting Highways are USH 14, from Kennedy to Wright Road, USH 51, from Kellogg to Black Bridge Rd and STH 26, and from Parker Drive to Kettering.

Rural Surface Transportation Program – (RU-STP) Federally funded program administered by the State, that receives 80% federal share and requires a 20% local match. Funds can be used to complete a variety of improvements to rural highways (primarily used on county highways). The objective of the STP-R is to improve federal aid eligible highways outside of urban areas. Projects must meet federal and state requirements. Communities are eligible for funding on roads classified higher than rural minor collectors. WisDOT did not provide future projections for STP-Rural funds because there is no way of knowing where the planning boundary will be in 30-years, so it is difficult to determine if a project currently identified as being eligible for STP rural funds will still be outside of the planning area in the future.

Federal Safety Programs -- (SAF) – Federal programs requiring a local match. The match varies by the specific SAF program, in general they have a 80 percent federal share and a 20 percent local match. Funds are for hazard elimination projects, such as railroad crossing improvements along State Highways.

General Transportation Aids –(GTAs)- No local match. State program to return to local governments a portion of the state-collected transportation revenues (fuel taxes and vehicle registration fees). GTAs are allocated to the local governments 4 times per year, and can be used on any roadway project. GTAs help offset the cost of traffic related costs such as road construction, maintenance, and traffic.

Local Funds – For projects locally funded or with a local match, the local funds are the responsibility of the funding jurisdiction. Local funds can be raised in several different ways. A few options are listed below:

General Fund – Local funds for street construction and maintenance are obtained primarily through the general property tax levy.
General Obligation Bonds - these funds are issued on a per project basis and are supported through the general tax levy**.**
Special Assessments – Special assessments are charged to property owners for sidewalk installation and street improvements when residential and commercial lands develop. Property owners may also pay a share of the cost for traffic signal or street improvements on streets adjoining their properties.
TIF Districts – A TIF district allows the City to retain property taxes on an industrial development to pay for land acquisition, transportation, and utility expense within that district. The City diverts increased revenues from rising property values to pay for the improvements that helped to increase the property's value. The City retains the incremental increase in tax revenues from the district, until all the infrastructure cost are paid, at which time the tax revenues from the district may be collect by all applicable taxing jurisdictions.

AVAILABLE FEDERAL AND STATE FUNDING

Funding projections for the long range plan were provided by WisDOT. For most of the programs, estimates were derived from MAP-21 specifications, which are apportionments based on a mileage and/or population formula. Program estimates based on apportionments include transit, STP Urban, and STH Maintenance and Operations. These cost projections are the most steady and reliable. Other funding program estimates were based on an average of historic amounts received combined with a mileage adjustment. This produced a reliable estimate for programs that are relatively predictable and steady, such as General Transportation Aids, Connecting Highway Aids, and Local Road Improvement Program.

The revenue estimates for two programs, Majors Program and STH Rehab (often called 3R), were based on past expenditures from 2009-2015. This produced unrealistically high revenue projections for the Janesville Area MPO due to the programmed expenditures related to the I-39/90 expansion project.

WisDOT and MPO staff decided to leave the future projection of Majors Program funding unknown because projects are determined by the Transportation Projects Commission. The STH Rehab Program revenue projection remains unrealistically high. The MPO decided to take a conservative approach to programming projects for the STH Program.

For the revenue projections, it was assumed funding levels would rise with the rate of inflation (2.3%).

Table 29: JANESVILLE AREA MPO REVENUE ESTIMATES FOR 2015-2050 (1,000'S)

	2016-2020		2021-2030		2031-2050	
	Average	Total	Average	Total	Average	Total
Majors	$ 114,055	$ 570,274	--	$ 116,678	unknown	unknown
STH Rehab (combined BB and non-BB)	$ 15,055	$ 75,273	$ 17,883	$ 178,829	$ 25,315	$ 506,295
SHR Bridges	$ 1,059	$ 5,295	$ 1,258	$ 12,580	$ 1,781	$ 35,617
STH Maintenance and Operations	$ 4,006	$ 20,028	$ 4,758	$ 47,581	$ 6,735	$ 134,709
STP Urban	$ 643	$ 3,215	$ 764	$ 7,638	$ 1,081	$ 21,624
General Transportation Aids	$ 3,078	$ 15,388	$ 3,656	$ 36,557	$ 5,175	$ 103,499
Connecting Highway Aids	$ 385	$ 1,925	$ 457	$ 4,574	$ 648	$ 12,951
LRIP	$ 128	$ 642	$ 152	$ 1,525	$ 216	$ 4,317
Federal Safety Programs	$ 560	$ 2,800	$ 665	$ 6,652	$ 942	$ 18,833
Local Bridges	$ 334	$ 1,672	$ 397	$ 3,973	$ 562	$ 11,247
Transportation Alternative Program	$ 119	$ 596	$ 142	$ 1,417	$ 201	$ 4,012
FTA 5307 Program	$ 1,286	$ 6,429	$ 1,527	$ 15,274	$ 2,162	$ 43,243
FTA 5339 Program (Capital)	$ 137	$ 686	$ 163	$ 1,630	$ 231	$ 4,616
Transit State Operating Assistance	$ 969	$ 4,847	$ 1,151	$ 11,514	$ 1,630	$ 32,599
Total (without MAJORS)	$ 27,759	$ 138,797	$ 32,974	$ 329,745	$ 46,678	$ 933,562
Total	$ 141,814	$ 709,071	$ 44,642	$ 446,423	$ 46,678	$ 933,562

SUMMARY OF LONG-RANGE NEEDS AND FUNDING

Estimating costs and revenues over 35 years is an imprecise process that is heavily influenced by funding availability and need. Therefore, the financial analysis will be revisited in each plan update. The total projected federal/state allocation for each funding program was greater than or equal to the total amount the MPO expects to need. Based on historical activity it, appears that the minimum local match needed for each of the approved federal/state projects is likely to be available (most programs require a 10% - 20% local match).

The funding expected to be available, along with the needs of the MPO are summarized in the table below. Should a funding shortfall arise, the MPO will seek to secure additional federal and state funds, or consider delaying projects.

COSTS

Per mile costs were based on September 2014 WisDOT cost guidance that used historic statewide item costs. ArcGIS was used to measure the approximate length of the project. For projects, the **Miles** of roadway was multiplied by the **Cost Estimate** (per mile) to find the **Total Miles Cost**. A total of 28% was then added to account for **Contingency** (15%), **Research and Engineering** (8%) and **Utilities** (5%).

Each planned and potential project shows a range of years for year of construction. For the purpose of the cost estimate, the upper limit of the construction range is used when adding annual inflation of 2.3%. For example, for projects with a 2016-2020 construction year, four years of inflation were added. A detailed description of how cost estimates were derived is contained in the Streets & Highways Appendix.

Real Estate Acquisition

The cost of real estate was not included in project cost estimates listed in the previous section. Determination of real estate acquisition needs is determined during the project design. Real estate is acquired within the context of land division and development review by requiring the dedication of right-of-way for existing and proposed streets and highways within the Extraterritorial Jurisdiction (ETJ). In the event of expansion of a roadway, any purchase of additional right-of-way would follow standards and regulations for acquisition and fair compensation.

FISCAL CONSTRAINT

The adopted *2015-2050 Long Range Transportation Plan* must demonstrate expected revenues are sufficient to fund recommended projects. All committed projects and planned projects make up the fiscally constrained Streets & Highways Plan. Costs are listed for the Proposed or Potential Projects in order to identify the resources needed to move a project into the Planned list or to include the project in the TIP or STIP. The long range plan will need to be amended to include any projects identified through studies listed in the plan, before the projects can move into the most current TIP or STIP.

Table 30: ANTICIPATED FUNDING AND NEED

	Planned or Programmed			Estimated Available Funding		
	2016-2020	2021-2030	2031-2050	2016-2020	2021-2030	2031-2050
Majors	$ 570,274	unknown	unknown	$ 570,274	$ 116,678	unknown
STH	$ -	$ 62,082	$ 138,102	$ 75,273	$ 178,829	$ 506,295
SHR Bridge	$ 5,295	$ 12,580	$ 35,617	$ 5,295	$ 12,580	$ 35,617
STP Urban	$ 2,940	$ 5,948	$ 20,357	$ 3,215	$ 7,638	$ 21,624
GTA	$ 15,388	$ 36,557	$ 103,499	$ 15,388	$ 36,557	$ 103,499
CHA	$ 1,925	$ 4,574	$ 12,951	$ 1,925	$ 4,574	$ 12,951
LRIP	$ 642	$ 1,525	$ 4,317	$ 642	$ 1,525	$ 4,317
FSP	$ -	$ 6,652	$ 18,833	$ 2,800	$ 6,652	$ 18,833
Local Bridges	$ 2,036	$ 3,973	$ 11,247	$ 1,672	$ 3,973	$ 11,247

Notes:

Majors – 2016-2020 represents what is currently programmed in the region. Estimated Available Funding 2021-2030 is an estimate of funding for the I-39/90 project if it extends beyond 2020 construction.

STH – All potential STH projects currently programmed in the region are in the Majors Program. Programmed for 2021-2030 include Milton Ave./26 reconstruction, USH 51 reconstruction Court to Joliet, USH 51 reconstruction STH 11 to Beloit. Programmed for 2031-2050 are USH 51 expansion Blackbridge to USH 14, USH 14 expansion 51 to Rivers Edge Dr., USH 14 expansion Rivers Edge Dr. to Evansville.

SHR Bridge – There are no projects currently programmed for SHR Bridge. It is assumed any funding available will be programmed.

GTA – The MPO does not program projects for General Transportation Aids. Local communities utilize all of the funding available.

CHA – The MPO does not program projects for Connecting Highway Aids. Local communities utilize all of the funding available.

LRIP – The MPO Transportation Improvement Program lists all LRIP projects planned in the MPO over the next two year period. Although no LRIP projects are identified in the LRTP, it is assumed any funding available will be programmed in future Transportation Improvement Programs.

FSP – There are no projects currently programmed (2016-2020) and listed as using Federal Safety Programs funding. It is assumed any funding available will be programmed.

Local Bridges – 2016-2020 planned projects include Sharon Rd. Bridge and Milwaukee St. Bridge. No projects are programmed beyond 2020 but it is assumed any funding available will be programmed.

COST VS. REVENUE ANALYSIS

The fiscal constraint table (Table 30) reflects all of the street/highway funding programs and estimates developed for the planning area. The MPO only identifies projects for select funding programs in its plans, such as Majors and STP Urban. As detailed in the notes on the previous page, the fiscal constraint table assumes all available funding will be utilized for those programs the MPO does not identify specific projects. Collectively, all of the programs contribute to the overall street system. In addition, Transportation Alternative Program Grants and Transit Capital and Operating Assistance Grants contribute to funding the local multi-modal transportation system.

The funding for these programs statewide has fluctuated over time, as documented in the *2014-2015 Budget Trends*, a report released by the Wisconsin Department of Transportation (WisDOT). The Office of Policy, Budget and Finance produced 2014-2015 *Budget Trends*, which is a comprehensive view of transportation budget information presented by program area. The impact of the American Recovery and Reinvestment Act (ARRA) can be seen in 2009 when local communities benefited from the influx of funding into the local programs.

Table 31: LOCAL ROAD ASSISTANCE 2000-2015

Local Road Assistance (nominal dollars, millions)			
State fiscal year	Other Local Road Assistance (Fed & Local)	LRIP (State & Local)	General Transportation Aids
2000	92.15	47.66	337.50
2001	99.85	42.66	348.52
2002	90.08	45.97	353.76
2003	90.08	47.89	366.16
2004	96.90	45.34	373.34
2005	95.33	45.34	373.34
2006	84.75	46.25	377.07
2007	85.42	47.17	384.61
2008	84.75	48.11	394.24
2009	128.23	49.08	381.23
2010	88.61	46.07	415.70
2011	88.14	46.07	425.86
2012	83.10	56.07	420.67
2013	83.10	56.07	403.52
2014	79.50	63.27	403.52
2015	83.10	56.07	410.64
2006-2015% Change	-1.95%	21.23%	8.90%
2006-2015 Compound Annual Growth Rate	*-0.20%*	*1.94%*	*0.86%*

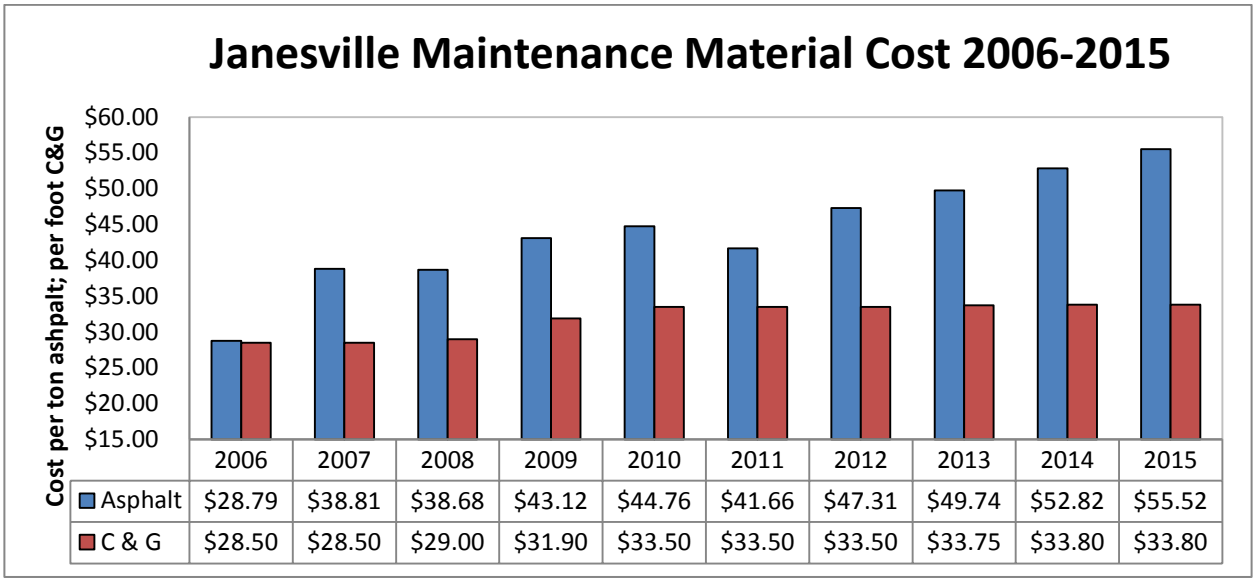
Source: http://wisconsindot.gov/Documents/about-wisdot/performance/budget/trends2014-15final.pdf

Cost of Rehabilitation

At the same time aid to local communities grew slower than the rate of inflation, cost to rehabilitate streets increased dramatically. In order to analyze cost, the cities of Milton and Janesville reported the average cost of asphalt per ton and the average cost of curb and gutter per lineal foot for years 2006 – 2015 in nominal dollars.

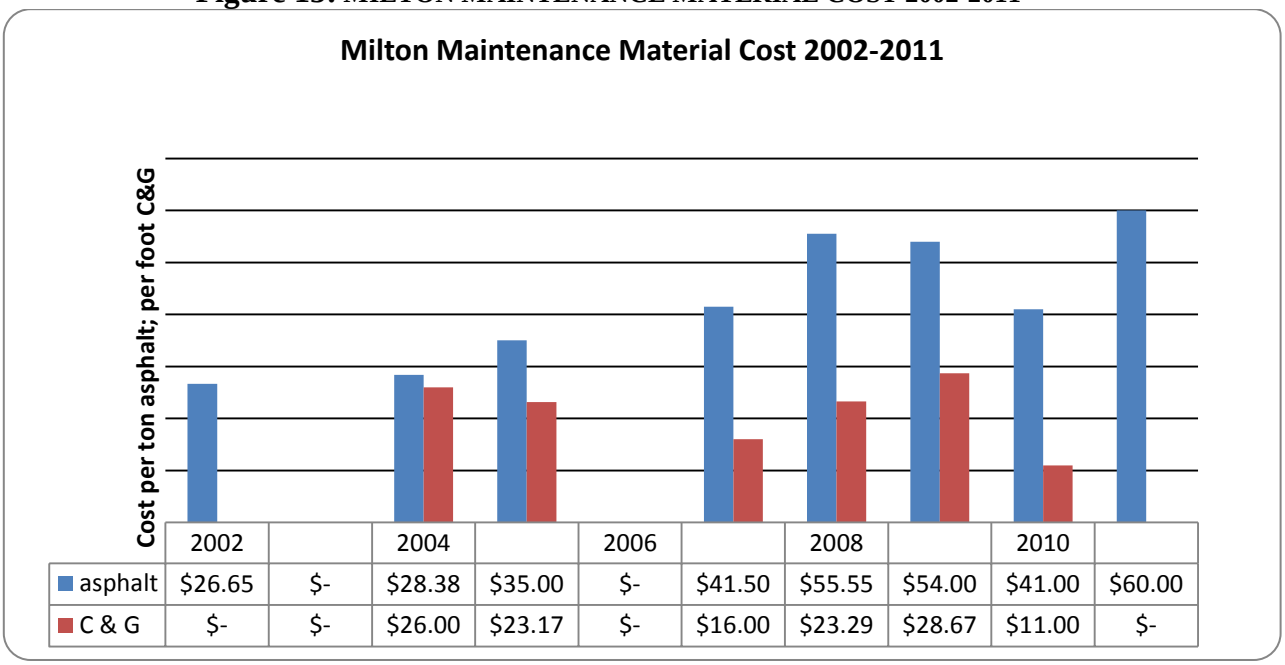
The cost of asphalt for Janesville has nearly doubled in the past ten years, from $28.79 per ton to $55.52. The cost for curb and gutter has increased 19%, from $28.50 per lineal foot to $33.80. The city of Milton did not bid asphalt and curb and gutter work for each year, but the available data shows an increasing trend in cost for asphalt. During the same period, the Consumer Price Index rose by 21%.

Figure 14: JANESVILLE MAINTENANCE MATERIAL COST 2006-2015



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Asphalt	$28.79	$38.81	$38.68	$43.12	$44.76	$41.66	$47.31	$49.74	$52.82	$55.52
C & G	$28.50	$28.50	$29.00	$31.90	$33.50	$33.50	$33.50	$33.75	$33.80	$33.80

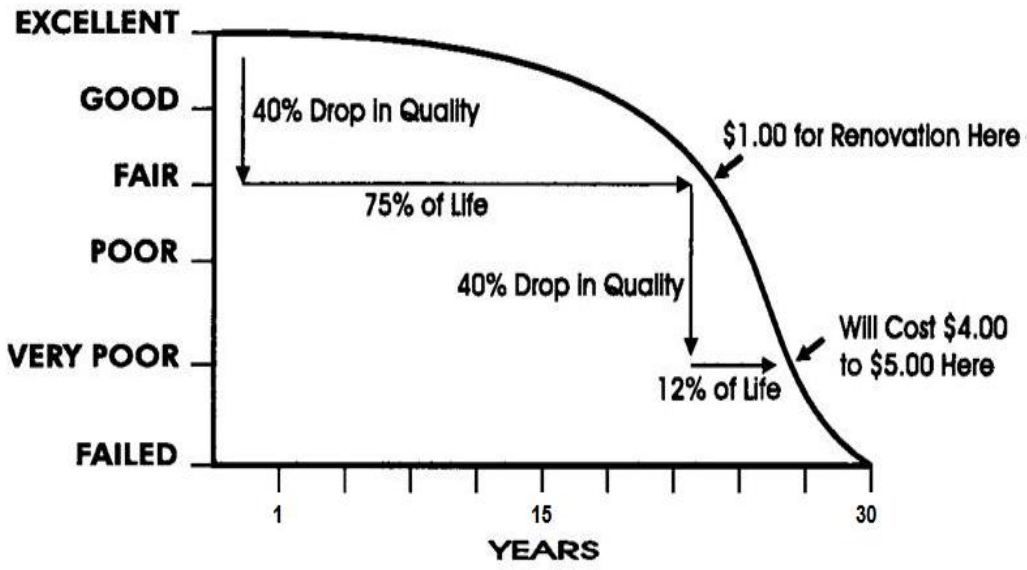
Figure 15: MILTON MAINTENANCE MATERIAL COST 2002-2011



	2002		2004		2006		2008		2010	
asphalt	$26.65	$-	$28.38	$35.00	$-	$41.50	$55.55	$54.00	$41.00	$60.00
C & G	$-	$-	$26.00	$23.17	$-	$16.00	$23.29	$28.67	$11.00	$-

Roadways have an approximate life expectancy of 22-25 years before reaching "fair" conditions (PASER Ratings of 4 & 5). Once a roadway is in "fair" condition status, roads begin to deteriorate more rapidly. Neglecting "very poor" or "failed" road conditions will incur additional cost to rehabilitate those road segments that can increase as much as 3-4 times that of a road segment in "fair" condition making it critical that road conditions are monitored and maintained at acceptable standards. Additionally, unsafe road conditions would be present to all users.

Figure 16: PAVEMENT CONDITION LIFE CYCLE



As of 2015, there are 332 miles of paved streets in the City of Janesville with an average life expectancy of 22 years. In order to maintain the current system in fair to good condition, the City should rehabilitate approximately 15 miles of street per year. However, between 2006 and 2015, the City rehabbed an average of 8.7 miles each year.

Fiscal Gap Conclusion

The stated goal of the MPO is to develop and maintain an increasingly energy efficient transportation system; one of the major objectives of which is to utilize existing transportation facilities and services to their full potential. The cities of Janesville and Milton together maintain 365 miles of roadway, which is a significant part of the total street network. Pavement condition data collected during 2015 shows roughly 22 miles of the local street system within the two cities are rated as poor, very poor, or failed. Rock County and the townships of Rock, Harmony, and Janesville also reported miles of street system in poor, very poor, or failed condition in 2015.

Although the MPO lacks multiple years of pavement data needed to establish a trend of deteriorating pavement condition, the inability of the cities to meet rehabilitation targets suggests pavement conditions will worsen in future years.

The cost to rehabilitate the street network is rising far quicker than the trend in funding used to pay for street rehabilitation. Federal, state, and local funding for the transportation system is constrained by stagnating or declining revenue and difficulty in raising or creating new streams of revenue. The MPO sets a modest goal in the System Performance section to maintain streets in fair (PASER rating of 5 or 5) or better condition. However, given the fiscal difficulties described in this plan, the goal may need to be re-evaluated and set to a lower standard in the future.

SUMMARY

The Streets & Highways section of the *2015- 2050 Janesville Area Long Range Transportation Plan* identifies corridors where traffic conditions will need further monitoring and evaluation over the planning period. In general, streets and roads in the planning area operate at high levels of service and few roadways are projected to be congested in 2050. Expansion of congested roadways will be the last option after other mitigation strategies have been exhausted.

The highway improvements recommended in this plan include a combination of maintenance, intersection reconstruction, road and bridge rehabilitation, and new construction projects, designed to meet the needs of the MPO. The MPO will continue to use established implementation and monitoring activities to target future problem areas, and identify potential land use or transportation policies and projects that could deter future congestion. The recommendations for improving existing facilities, constructing new facilities, and improving conditions to minimize personal and property injury included in this plan reflect the transportation objectives that the MPO has been working to meet over the past ten years and will continue to work on through the year 2050. In summary, the recommendations in the Streets & Highways section maintain the dedication the Janesville Area MPO has toward planning and developing an efficient and effective roadway network.

7. SYSTEM PERFORMANCE

Economic Vitality

Although a number of data sets exist to measure economic vitality (unemployment, income, home value), it is difficult to choose a measure related to the streets and highways mode of transportation. On the one hand, vehicle traffic may indicate increased economic activity; on the other hand, it may also indicate inefficient operations and possibly poor land use planning.

System Preservation

MPO jurisdictions utilize the Pavement Surface Evaluation and Rating (PASER) system of evaluating roadway conditions under their jurisdiction every two years as required under State Statute in 2009. The change aligns with other Wisconsin municipalities utilizing the PASER system due to the simplicity of the evaluation of roadway conditions.

The PASER system rates roadway conditions between the ranges of 1 (needing total reconstruction) to 10 (typically reflects new construction), see Table 29. The PASER data can then be entered into the Wisconsin Information System for Local Roads (WISLR), a website that assists local governments and WisDOT to manage local road data to improve decision-making, and meet State Statute requirements.

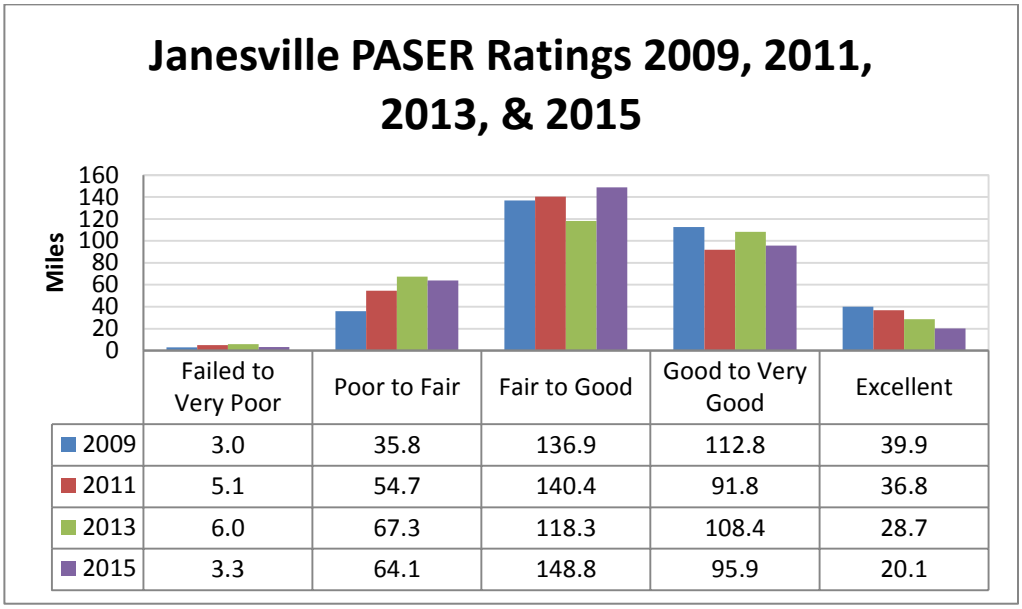
Table 31: PASER RATING AND CONDITION

PASER Rating	Road Condition
9 & 10	Excellent
8	Very Good
6 & 7	Good
4 & 5	Fair
3	Poor
2	Very Poor
1	Failed

Overall road conditions in the Cities of Janesville and Milton have a satisfactory rating with only 20% of all roadways in each City rated four or below, requiring structural improvement. Of the 67 miles in Janesville rated four or less, 20 miles are rated poor, very poor, or failed. Milton has less than 7 miles of roadways with a rating of four or less, of which approximately 1.5 miles are rated as poor or less.

As shown in Figure 16, the City of Janesville has a trend of decreasing Excellent rated road conditions and an increasing fair to failed rated road conditions. The City of Milton (Figure 17) have similar rated road conditions with decreasing annual Excellent rated road conditions and an increasing number of fair to failed road conditions. Milton does seem to have an outlier for 2015 with its numbers of Fair to Good rated road conditions. This might be due to the lower number of miles of roads the City of Milton (32 miles) have to manage compared to the City of Janesville (332 miles).

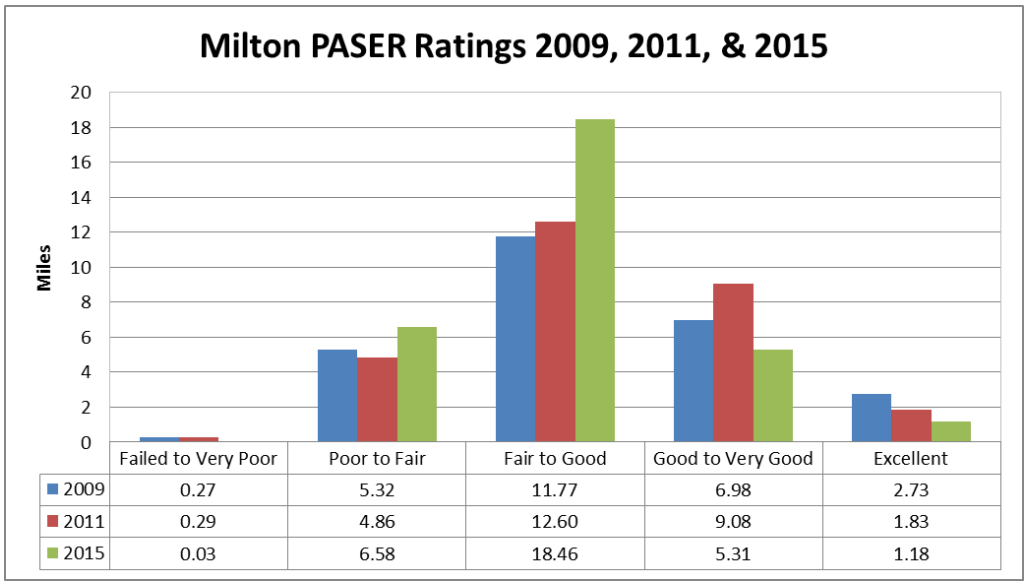
Figure 16: CITY OF JANESVILLE ROAD CONDITIONS SINCE IMPLEMENTATION OF PASER SYSTEM



	Failed to Very Poor	Poor to Fair	Fair to Good	Good to Very Good	Excellent
2009	3.0	35.8	136.9	112.8	39.9
2011	5.1	54.7	140.4	91.8	36.8
2013	6.0	67.3	118.3	108.4	28.7
2015	3.3	64.1	148.8	95.9	20.1

Source: City of Janesville MPO

Figure 17: CITY OF MILTON ROAD CONDITIONS SINCE IMPLEMENTATINON OF PASER SYSTEM



	Failed to Very Poor	Poor to Fair	Fair to Good	Good to Very Good	Excellent
2009	0.27	5.32	11.77	6.98	2.73
2011	0.29	4.86	12.60	9.08	1.83
2015	0.03	6.58	18.46	5.31	1.18

* No data was provided for year 2013 from the City of Milton
Source: City of Milton

The MPO obtained PASER ratings from Rock County and received reports for four of the five townships directly from WisDOT for the purpose of the LRTP. The MPO will obtain the pavement

reports every two years and monitor the trend in pavement conditions in the future.

Figure 18:ROCK COUNTY ROAD CONDITIONS 2015

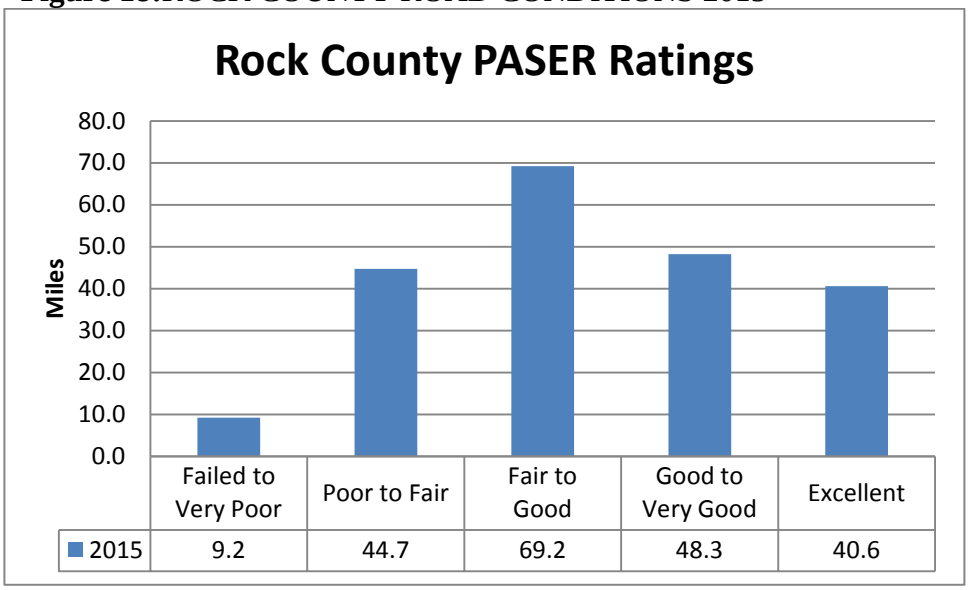


Figure 19:LA PRAIRIE TOWNSHIP ROAD CONDITIONS 2015

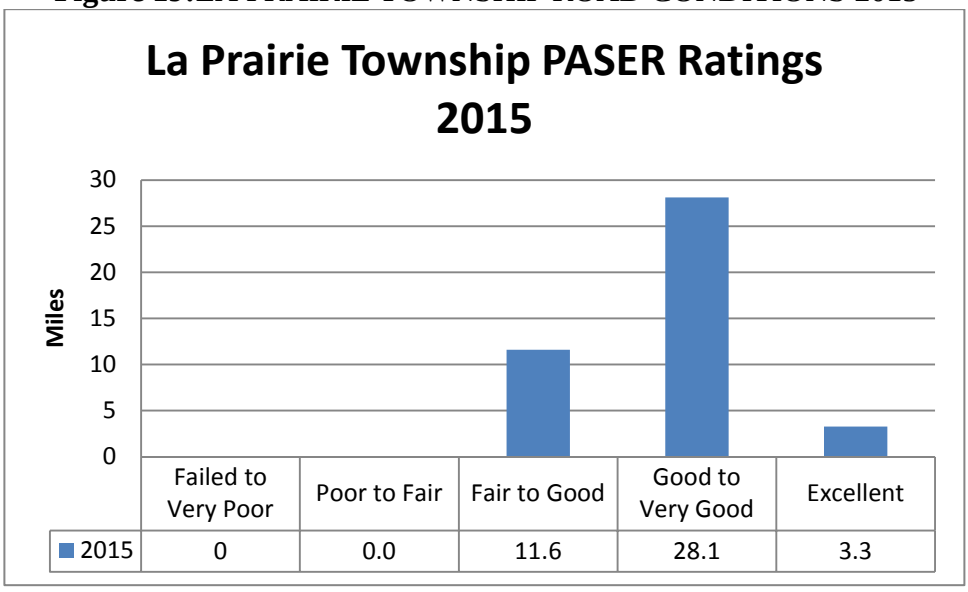


Figure 20: ROCK TOWNSHIP ROAD CONDITIONS 2015

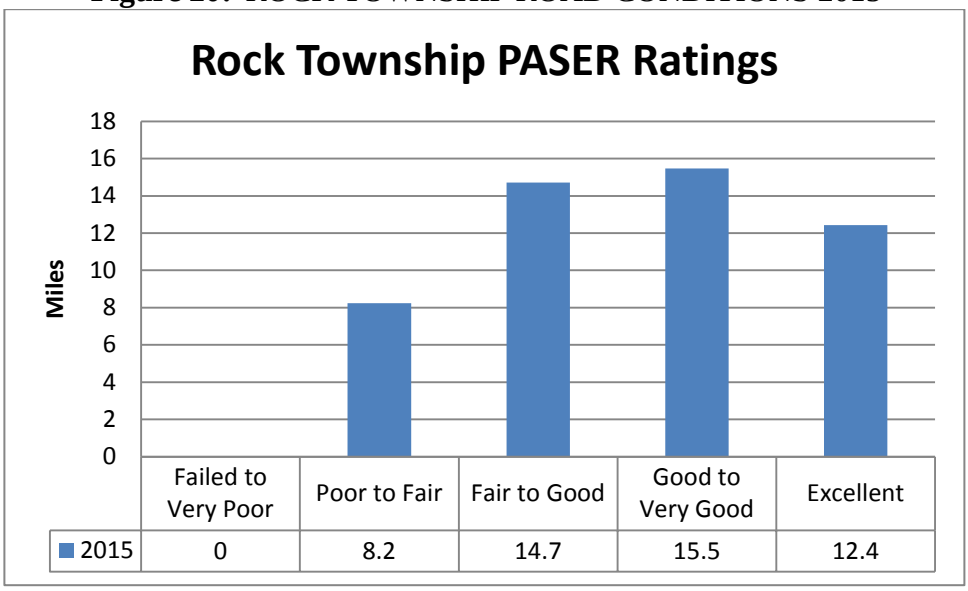


Figure 21: JANESVILLE TOWNSHIP ROAD CONDITIONS 2015

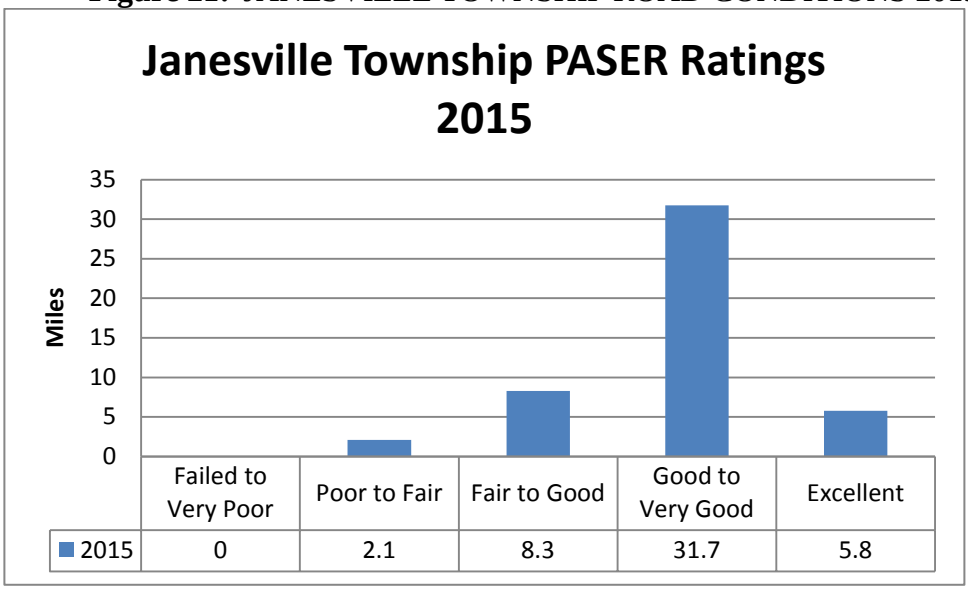
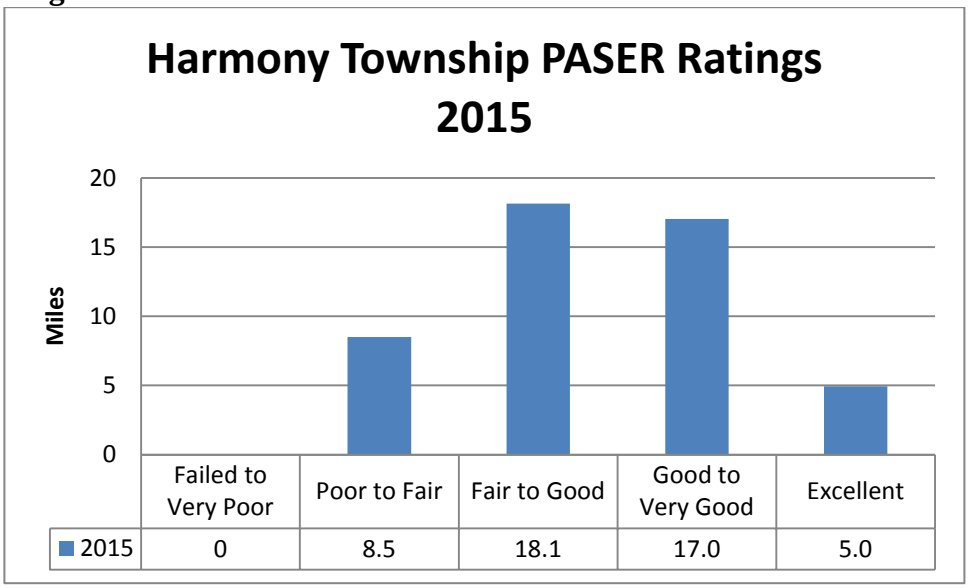


Figure 22: HARMONY TOWNSHIP ROAD CONDITIONS 2015



PASER is an excellent data set for performance based planning because it is consistently collected and reported every two years. For this reason, it is possible to set a specific target to maintain the street network in Fair/Good condition.

Similar to streets, all bridge structures are inspected and reported to the State of Wisconsin, per State Statute. The numeric value consists of four separate factors: Structural Adequacy and Safety; Serviceability and Functional Osolescence; Essentiality for Public Use; Special Reductions. Bridge sufficiency rating is a 0 to 100 score in which a new bridge would have a sufficiency rating of 100 and an entirely insuffient or deficient bridge could have a rating of zero.

The MPO has bridge sufficiency ratings for structures within City of Janesville limits from 2002-2014. The average rating for all of the structures has remained relatively stable in the 70's. Several bridge projects scheduled in the next five years will address structures with ratings under 50. Milwaukee and Sharon Road bridges have secured federal bridge assistance and will be replaced before 2020. The Dodge Street structure is another name for the Parking Plaza, a single level parking structure that spans the Rock River. The City is scheduled to permanantly remove the structure in 2016-2017.

Table 32: JANESVILLE AREA BRIDGE SUFFICIENCY 2002-2014

Structure Number	Structure On	Structure Under	2002	2004	2006	2008	2010	2012	2014
B-53-13	E. Racine St.	Spring Brook	72.4	72.4	72.4	72.4	72.4	72.4	75.4
B-53-18	USH 51 - E Centerway	Rock River	79.3	80	80	80	80	80	82.0
B-53-49	W. Racine St. (Old STH 11)	Rock River	89.8	90.5	90.5	90.5	90.5	90.5	92.7
B-53-98	Memorial Dr.	USH 51 - N. Parker Dr.	79.7	76.5	91.9	91.9	91.9	93.9	93.5
B-53-135	USH 51 - Center St.	Union Pacific	66.5	65.4	65.4	65.4	65.4	65.4	49.5
B-53-137	Black Bridge Rd.	Haul Road	83	82.8	82.8	82.8	82.8	82.8	86.4
B-53-147	Beloit Ave.	Spring Brook	95.1	93.6	93.6	93.6	93.6	93.6	97.3
B-53-154	USH 51 - Center St.	Wis & Southern	85	81	81	81	81	81	71.0
B-53-165	South Main St.	Spring Brook	82.5	80.5	80.5	80.5	80.5	80.5	82.5
B-53-191	E. Court St.	Rock River	78.9	78.9	78.9	78.9	78.9	78.9	81.3
B-53-228	Wuthering Hills Dr.	Spring Brook	100	84.4	99.5	99.5	99.5	97.5	99.4
B-53-280	Ruger Ave.	Spring Brook	43.9	43.9	43.9	43.9	95	96.2	98.6
P-53-715	Milwaukee St.	Rock River	74.7	72.6	72.6	72.6	72.6	52	55.8
P-53-717	Sharon Rd.	Spring Brook	62.3	48.3	48.3	48.3	48.3	48.3	48.3
P-53-724	Wright Rd.	Spring Brook	92.1	72.6	88	88	88	88	91.4
P-53-727	S. Jackson St.	Rock River	77.9	75.6	75.6	55.9	43.6	43.7	*
P-53-729	Dodge St.	Rock River	61.2	21.3	21.3	41.4	41.4	21.4	4.1
P-53-736	Palmer Dr.	Spring Brook	92.1	71.9	87.1	87.1	87.1	89.1	92.2
Average rating			78.7	71.8	75.2	75.2	77.4	75.3	76.6

*Jackson St. Bridge replaced 2014-2015

Efficient Management and Operations

The Rock County Travel Demand Model measures the efficiency of the street system by analyzing levels of congestion and Level-of-service (LOS). As discussed in section four of this chapter, the Janesville area has very little current or forecasted congestion. The MPO shall continue to examine travel model results every five years in conjunction with updates to the Long Range Transportation Plan.

Another indicator of efficient operations of the system is traffic speed. Actual average travel speeds should align closely with posted speed limits. Average speeds significantly below the posted limit indicate congestion levels while speeds well above limits indicate motorists are not maintaining proper speed. MPO jurisdictions, including WisDOT, conduct speed studies as part of corridor studies or to address particular issues on a roadway. The MPO does not conduct comprehensive area-wide speed studies, however, the MPO will analyze the effects of road diets and reconfigurations that are recommended in this Plan.

Safety

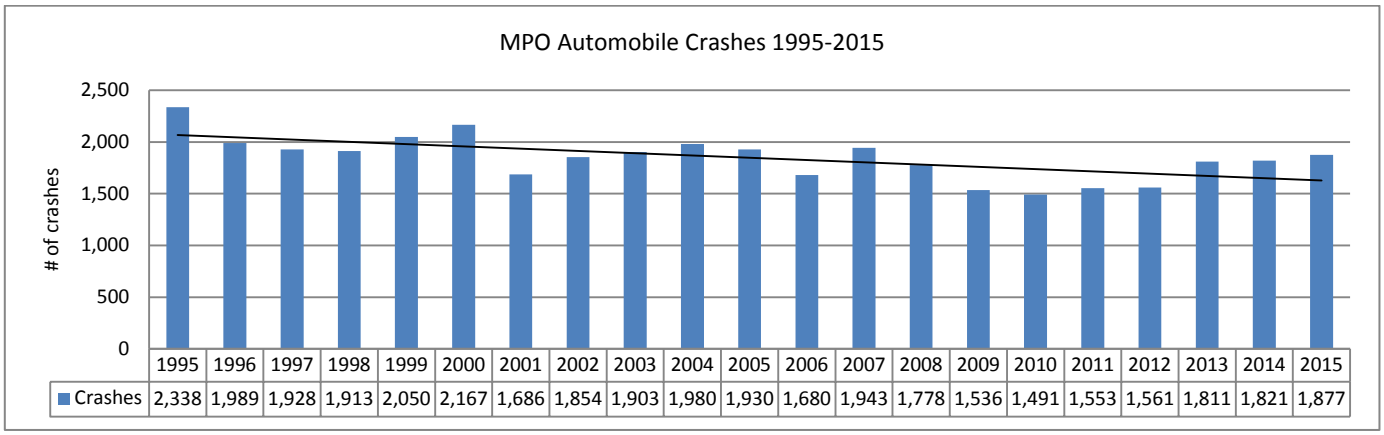
The University of Wisconsin Traffic Operations and Safety Laboratory (TOPS Lab) maintains MV4000 crash database, a web based query tool that provides reliable and consistent data on all types of crashes. The Bicycle & Pedestrian Section of the LRTP includes bicycle and pedestrian related crashes from 1995 – 2015. Data regarding automobile crashes is provided below. There is a slight decreasing trend in total number of crashes in the MPO jurisdictions. Total number of fatalities has remained relatively stable but the number of injury crashes is on the decline.

Table 33: AUTOMOBILE CRASHES 1995-2015

Janesville MPO Auto Crash Summary																							
	Total	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Rock County	**70,719**	4,171	3,680	3,532	3,355	3,639	3,910	3,163	3,398	3,541	3,510	3,577	3,144	3,564	3,424	2,775	2794	2814	2772	3256	3365	3335
MPO Jurisdictions*	**38,789**	**2,338**	**1,989**	**1,928**	**1,913**	**2,050**	**2,167**	**1,686**	**1,854**	**1,903**	**1,980**	**1,930**	**1,680**	**1,943**	**1,778**	**1,536**	**1,491**	**1,553**	**1561**	**1811**	**1821**	**1877**
City of Janesville	**28,745**	1,789	1,451	1,400	1,464	1,494	1,658	1,256	1,366	1,339	1,470	1,428	1,238	1,389	1,298	1,114	1149	1170	1156	1354	1383	1379
City of Milton	**1,229**	57	61	46	43	67	35	52	51	46	67	55	57	79	67	57	51	66	70	62	67	73
Town of Harmony	**1,446**	79	86	79	88	77	92	54	86	62	64	64	52	79	66	61	32	49	67	65	65	79
Town of Janesville	**1,800**	133	107	89	74	123	77	72	86	117	112	93	95	74	69	60	66	61	64	70	81	77
Town of La Prairie	**2,011**	92	83	100	82	86	111	75	100	135	113	97	79	132	112	101	57	66	86	101	87	116
Town of Milton	**1,946**	105	97	115	91	129	110	92	91	96	81	93	82	100	95	88	71	80	61	95	91	83
Town of Rock	**1,612**	83	104	99	71	74	84	85	74	108	73	100	77	90	71	55	65	61	57	64	47	70
Injuries	**23,318**	1,365	1,351	1,278	1,301	1,323	1,361	1,157	1,257	1,304	1,236	1,207	1,041	1,092	1,035	761	860	798	819	891	937	944
Fatalities	**400**	17	28	9	16	20	17	23	27	18	20	26	26	25	16	17	22	18	16	9	11	19

*Includes entirety of townships and does not end at the MPO boundary

Figure 23: MPO AUTOMOBILE CRASHES 1995-2015



Security

The security of the future Park-and-ride lot will be the responsibility of the City of Janesville. While crimes or convictions associated with the location is a difficult measure to track, the number of calls for service to the lot is a data measure that can be tracked easily. One caveat to this data measure is that not all calls for service result in a crime charge being issued.

Accessibility and Mobility

This planning factor deals mainly with accessibility and mobility of persons without the use of a personal vehicle. The Bicycle &Pedestrian Section analyzes miles of trail, bike lanes, and sidewalk as measures of accessibility. Mileage of bike lanes and sidewalk would be an appropriate performance indicator for the Streets & Highways Section as well.

Integration & Connectivity of the System

As discussed earlier in this section, there are no official Park-and-ride lots in the Janesville area, but one will be constructed at the E. Racine interchange as part of the I-39/90 expansion. The number of Park-and-ride lots would be an appropriate measure of integration of the system.

Protect & Enhance the Environment

Transportation related emissions are a major source of Green House Gas (GHG) emissions which contribute to global climate change. As discussed in the Land Use, Health, and Sustainability Section, the MPO plays a role in developing and implementing strategies to improve the transportation system and operations and reduce motorized travel activity. Level Of Service (LOS) is an appropriate measure of how well the system is operating. The Census Bureau American Community Survey (ACS) provides reliable data about travel mode to work, and so a goal to reduce drive alone trips would be easy to monitor.

PERFORMANCE TARGETS AND INDICATORS

Table 34: PERFORMANCE TARGETS AND INDICATORS

Goal/Target	**Indicator**	**Data Source**	**Data Frequency**	**Justification**
Economic Vitality				
No measures at this time				
System Preservation				
All streets rated Fair or better.	PASER ratings	WISLR WisDOT	2 years	poor/failing roads increase cost to maintain
Replace structures rated below 50 within 5 years	Structure sufficiency ratings	Engineering WisDOT	2 years	
Efficient Management and Operations (System Operation and Usage)				
Ensure acceptable levels of traffic congestion	Level-of-Service (LOS) D or higher	WisDOT Travel Demand Model	5 years	To ensure efficient operations
Average traffic speed within 8mph of posted speed limit	Speed limit studies	WisDOT Engineering	Variable	Improve safety and traffic flow
Safety				
Reduce total crashes (motorized)	# of total crashes	WisTransPortal	Annual	
Reduce crashes (motorized)	# of fatal crashes	WisTransPortal	Annual	
Reduce injury crashes (motorized)	# of injury crashes	WisTransPortal	Annual	

Security				
Secure Park and Ride Lots	# of calls for police service	City of Janesville, other jurisdictions	Variable	
Accessibility				
.4 miles/yr. new bike lane	# of miles of bike lane	MPO	Variable	14 miles recommended over 35 yr. plan horizon
Integration & Connectivity of the System				
Encourage Park-and-Ride locations	# of Park-and-Ride locations	WisDOT MPO	Variable	MPO is a stakeholder in planning for lots.
Protect and Enhance the Environment				
Decrease drive alone to work trips	Census commuting data	Census American Community Survey	Annual	Greater mode share will reduce emissions
Improve Air Quality	Air Quality Index	USEPA	Annual	Trend in improving overall air quality
Ensure acceptable levels of traffic congestion	Level-of-Service (LOS) D or higher	WisDOT Travel Demand Model	5 years	To ensure efficient operations

REFERENCES

Facilities Development Manual. 2003. WisDOT

Functional Classification Criteria. 2004. Wisconsin Department of Transportation.

Highway Capacity Manual. 1994. WisDOT.

Wisconsin Bicycle Facility Design Handbook, 2004. Wisconsin Department of Transportation