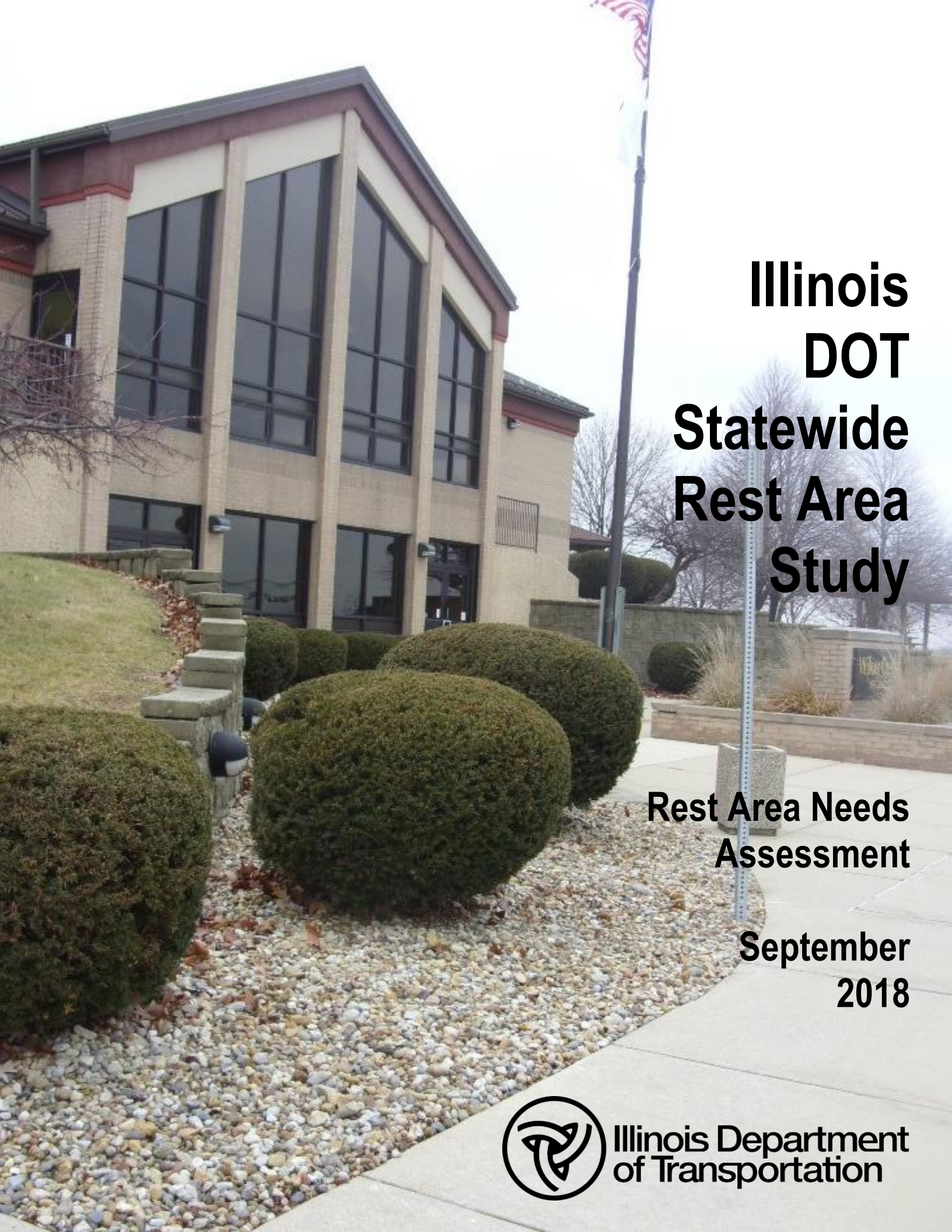
HIGHWAY FACTORS ATTACHMENT

Illinois DOT Statewide Rest Area Study, Rest Area Needs Assessment, dated September 2018

Highland, IL

HWY23MH015

(56 pages)



Illinois DOT Statewide Rest Area Study

Rest Area Needs Assessment

September 2018

Illinois Department of Transportation

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1 Introduction

This document includes a rest area needs assessment that was performed as part of the Illinois DOT Statewide Rest Area Study. The focus of the needs assessment was to identify specific service and infrastructure needs at Illinois DOT rest areas and locations within the state where additional service is needed. Needs were identified related to the following items.

- Rest area service needs.
- Aging rest area infrastructure needs.
- Rest area spacing needs.
- Truck parking needs.

The needs assessment used a review of the existing system to evaluate the system for various needs. A summary of the existing system is provided in the following section, with identification of system needs following the existing system summary.

2 Existing System

The existing system of Illinois DOT rest areas and related system characteristics along Interstate routes were reviewed in support of identifying rest area needs. The existing system is well-documented in the *Illinois DOT Statewide Rest Area Study Data Collection Report* (March 2018). This chapter presents summaries of the following items related to the existing system:

- Rest areas
- Alternative service locations (ASLs)
- Truck parking at non-rest area locations
- Fatigue-related crashes
- Rest area user survey

2.1 Rest Areas

There are 53 rest areas in Illinois that are owned by Illinois DOT on the Interstate system (not including service plazas on Illinois toll roads). The Illinois DOT rest areas are shown graphically in **Figure 2-1**. The majority of these rest areas are directional rest areas, where they serve one direction of travel on the Interstate via directional exit/entrance ramps (e.g., the Limestone NB rest area serves northbound I-55 traffic only). Directional rest areas are generally located throughout the state in pairs to provide rest area services to both directions of travel near the same location along the Interstate. Two rest areas serve both directions of travel with the same facility (single-point rest areas); these are the Fort Massac and Funks Grove rest areas. The Fort Massac rest area is located at the I-24 service interchange (interchange with a local road) at mile post 37. The Funks Grove rest area is located on I-55 near mile post 149 with separate directional ramps provided for northbound and southbound travel, and with independent parking areas for each direction of travel (i.e., traffic on northbound I-55 cannot change travel direction at the Funks Grove rest area).

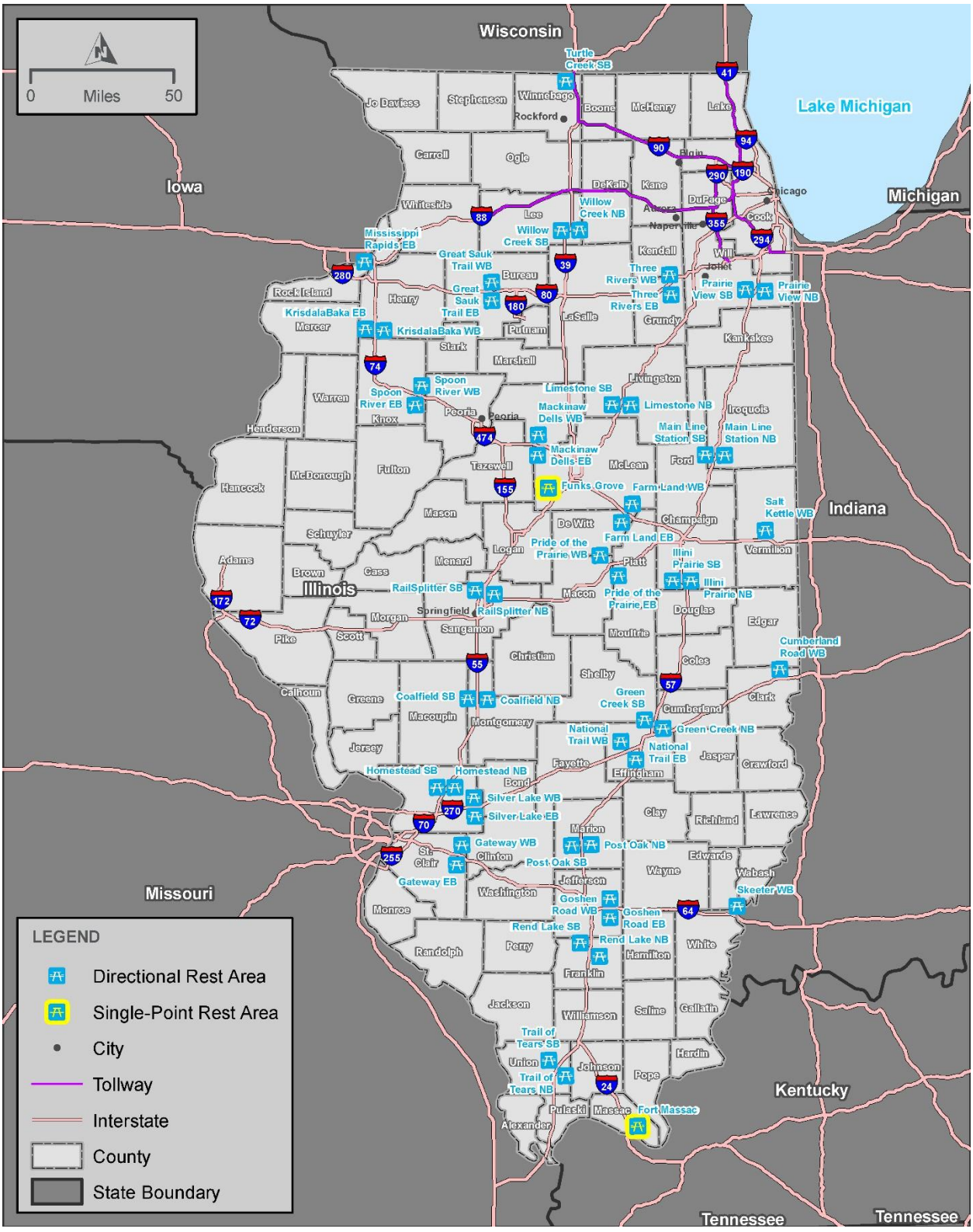
Rest area services, age, spacing, traffic volumes and parking utilization are further summarized in the following sections.

2.1.1 Rest Area Services

Rest areas provide a variety of services to travelers. All Illinois DOT rest areas provide the most basic services of restrooms (including handicap accessible stalls), parking, drinking water, traveler information and picnic areas. Most rest areas also provide payphones and teletypewriter services for hearing impaired travelers, vending machines, weather information, playground equipment and pet areas. A summary of services at Illinois DOT rest areas is provided in **Table 2-1** and **Table 2-2**.

All Illinois DOT rest areas provide the most basic services of restrooms, parking, drinking water, traveler information and picnic areas.

Figure 2-1. Illinois DOT Rest Area Location Map



Source: HDR with input from Illinois DOT website, May 2018.

Table 2-1. Rest Area Services (Table 1 of 2)

Rest Area Name	Route / Direction	Mile Post	IDOT District	Car Parking Stalls	Truck Parking Stalls	Family Assist Restrooms	Payphone / TTY Station [1]	Vending	Weather Information	Welcome Center	Playground Equipment	Pet Area
Fort Massac [2]	I-24 EB/WB	37	9	29	18		✓	✓	✓	✓	✓	✓
Willow Creek NB	I-39 NB	85	2	39	42	✓	✓	✓	✓		✓	✓
Willow Creek SB	I-39 SB	85	2	37	42	✓	✓	✓	✓		✓	✓
Homestead NB	I-55 NB	28	8	64	40	✓		✓	✓	✓	✓	✓
Homestead SB	I-55 SB	28	8	73	48	✓		✓	✓		✓	✓
Coalfield NB	I-55 NB	65	6	46	28		✓	✓	✓		✓	✓
Coalfield SB	I-55 SB	65	6	46	28		✓	✓	✓		✓	✓
RailSplitter NB	I-55 NB	102	6	22	6			✓				
RailSplitter SB	I-55 SB	104	6	22	6			✓				
Funks Grove [3]	I-55 NB	149	5	42	20	✓	✓	✓	✓		✓	✓
	I-55 SB			42	20							
Limestone NB	I-55 NB	194	3	37	36		✓	✓	✓		✓	✓
Limestone SB	I-55 SB	194	3	36	29		✓	✓	✓		✓	✓
Trail of Tears NB	I-57 NB	32	9	28	20		✓	✓	✓	✓		
Trail of Tears SB	I-57 SB	32	9	30	20		✓	✓	✓			
Rend Lake NB	I-57 NB	74	9	41	34			✓	✓	✓	✓	✓
Rend Lake SB	I-57 SB	79	9	37	34			✓	✓	✓	✓	✓
Post Oak NB	I-57 NB	114	8	26	18		✓	✓	✓			✓
Post Oak SB	I-57 SB	114	8	25	18		✓	✓	✓			✓
Green Creek NB	I-57 NB	167	7	23	15		✓	✓	✓			✓
Green Creek SB	I-57 SB	167	7	24	16		✓	✓	✓			✓
Illini Prairie NB	I-57 NB	222	5	44	21	✓ [4]		✓	✓		✓	✓
Illini Prairie SB	I-57 SB	222	5	44	21	✓ [4]		✓	✓		✓	✓
Main Line Station NB	I-57 NB	269	3	28	25		✓	✓	✓		✓	✓
Main Line Station SB	I-57 SB	269	3	28	27		✓	✓	✓		✓	✓
Prairie View NB	I-57 NB	333	1	30	20			✓	✓	✓	✓	✓
Prairie View SB	I-57 SB	333	1	32	19			✓	✓	✓	✓	✓

Source: Illinois DOT Districts, November 2017 – February 2018.
Note: All rest areas include the following services: Rest rooms (including handicap accessible stalls), parking, drinking water, traveler information and picnic area.

[1] Teletypewriter to send and receive typed messages for the hearing impaired.
[2] Fort Massac rest area serves both directions of travel on I-24 at the service interchange at mile post 37.
[3] Funks Grove rest area serves both directions of travel on I-55 at mile post 149. Access and parking for each direction of travel is independent from one other.
[4] Service was not provided at the rest area at the time of data collection; however, this service is being added at this location in 2018.

Table 2-2. Rest Area Services (Table 2 of 2)

Rest Area Name	Route / Direction	Mile Post	IDOT District	Car Parking Stalls	Truck Parking Stalls	Family Assist Restrooms	Payphone / TTY Station [1]	Vending	Weather Information	Welcome Center	Playground Equipment	Pet Area
Gateway EB	I-64 EB	25	8	34	27			✓	✓			✓
Gateway WB	I-64 WB	25	8	30	26			✓	✓			✓
Goshen Road EB	I-64 EB	83	9	26	20	✓	✓	✓	✓		✓	✓
Goshen Road WB	I-64 WB	85	9	24	20	✓	✓	✓	✓		✓	✓
Skeeter WB	I-64 WB	130	9	31	21		✓	✓				✓
Silver Lake EB	I-70 EB	26	8	47	21			✓	✓	✓		✓
Silver Lake WB	I-70 WB	27	8	39	22			✓	✓			✓
National Trail EB	I-70 EB	86	7	60	60		✓	✓	✓		✓	✓
National Trail WB	I-70 WB	86	7	26	18		✓	✓	✓			✓
Cumberland Road WB	I-70 WB	149	7	42	39			✓	✓	✓	✓	✓
Pride of the Prairie EB	I-72 EB	152	7	19	16	✓ [2]	✓	✓	✓		✓	✓
Pride of the Prairie WB	I-72 WB	152	7	19	17	✓ [2]	✓	✓	✓		✓	✓
KrisdalaBaka EB	I-74 EB	28	2	22	14		✓	✓	✓		✓	✓
KrisdalaBaka WB	I-74 WB	28	2	22	15		✓	✓	✓		✓	✓
Spoon River EB	I-74 EB	62	4	21	13			✓	✓		✓	✓
Spoon River WB	I-74 WB	62	4	17	12			✓	✓		✓	✓
Mackinaw Dells EB	I-74 EB	114	4	31	25		✓	✓	✓		✓	✓
Mackinaw Dells WB	I-74 WB	114	4	41	18		✓	✓	✓		✓	✓
Farm Land EB	I-74 EB	156	5	38	42	✓	✓	✓	✓		✓	✓
Farm Land WB	I-74 WB	156	5	38	42	✓	✓	✓	✓		✓	✓
Salt Kettle WB	I-74 WB	208	4	28	20	✓ [2]		✓	✓	✓	✓	✓
Mississippi Rapids EB	I-80 EB	1	2	46	0 [3]		✓	✓ [2]	✓	✓	✓	✓
Great Sauk Trail EB	I-80 EB	51	3	46	39		✓	✓	✓		✓	✓
Great Sauk Trail WB	I-80 WB	51	3	54	47		✓	✓	✓		✓	✓
Three Rivers EB	I-80 EB	117	3	47	31		✓	✓	✓		✓	✓
Three Rivers WB	I-80 WB	118	3	39	39		✓	✓	✓		✓	✓
Turtle Creek SB	I-90 SB	1	2	55	0 [3]	✓		✓	✓	✓	✓	✓

Source: Illinois DOT Districts, November 2017 – February 2018.

Note: All rest areas include the following services: Rest rooms (including handicap accessible stalls), parking, drinking water, traveler information and picnic area.

[1] Teletypewriter to send and receive typed messages for the hearing impaired.

[2] Service was not provided at the rest area at the time of data collection; however, this service is being added at this location in 2018.

[3] Trucks not allowed at Mississippi Rapids EB and Turtle Creek SB rest areas.

2.1.2 Rest Area Age

The average Illinois DOT rest area age is 35 years old, and the range is 20-55 years old.

Rest area age is often an indicator of the quality of services and infrastructure condition at the site. The average Illinois DOT rest area age is 35 years old. The newest rest areas are 20 years old (built in 1998) at six locations: Homestead NB, Homestead SB, Silver Lake EB, Silver Lake WB, Pride of the Prairie EB and Pride of the Prairie WB. The oldest rest areas are 55 years old (built in 1963) at the RailSplitter NB and RailSplitter SB rest areas on I-55 north of Springfield. Rest area ages are provided in **Table 2-3**. Rest area ages are also shown graphically in **Figure 2-2**.

Most rest areas have had infrastructure improvements since their original construction, such as new water heaters, heating/ventilation/air conditioning systems installed, or roof replacement. These types of improvements extend the rest area service life. A review of renovation needs at each rest area were used to determine reduced rest area age (adjusted age). The process by which the adjusted age was calculated is further detailed in Section 3.2, in conjunction with the rest area infrastructure needs costs. The adjusted rest area age is also shown in **Table 2-3** alongside the actual rest area age.

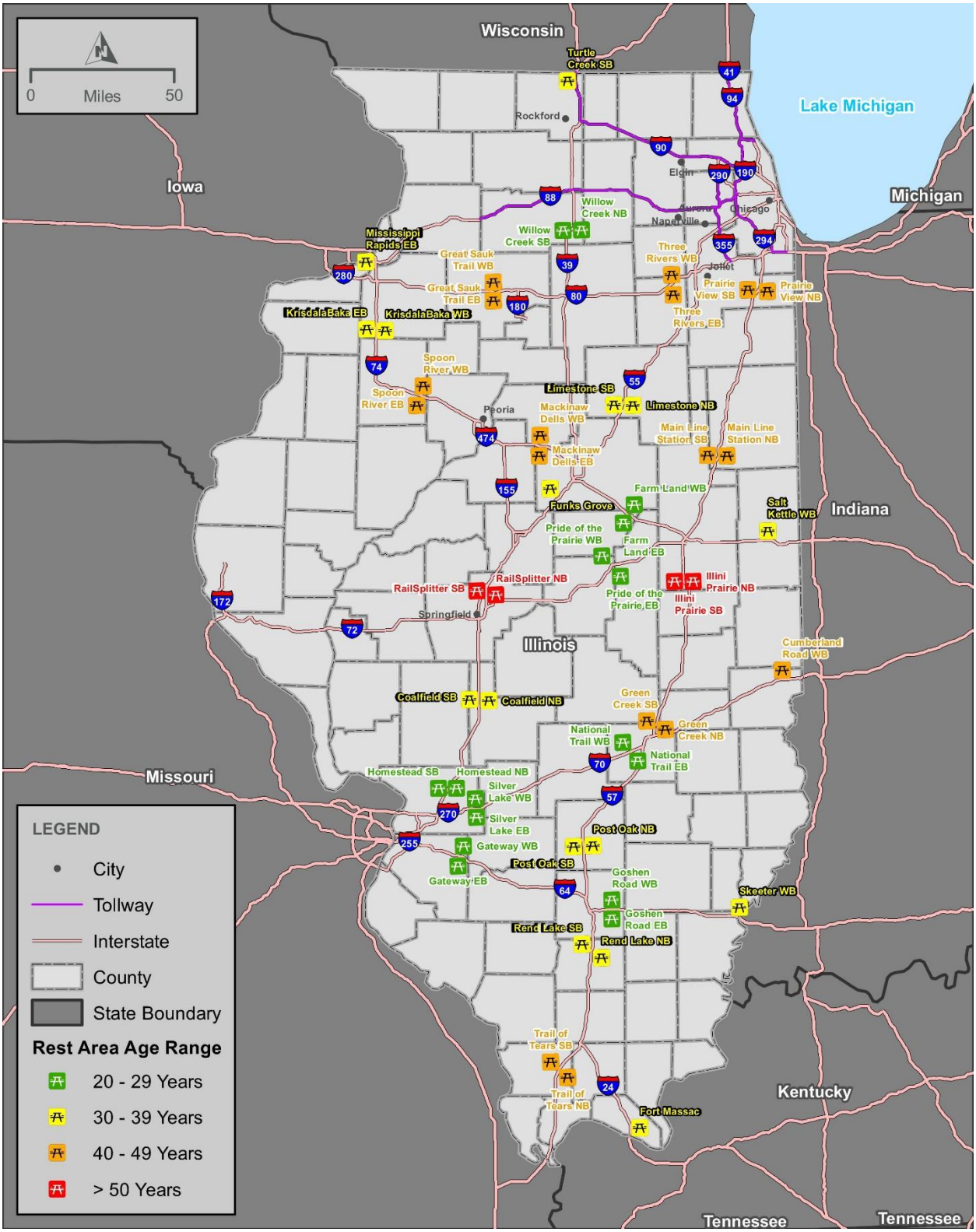
Table 2-3. Rest Area Age

Rest Area Name	Route / Direction	Mile Post	IDOT District	Year Built	Age (In 2018)	Adjusted Age
Fort Massac	I-24 EB/WB	37	9	1982	36	36
Willow Creek NB	I-39 NB	85	2	1992	26	20
Willow Creek SB	I-39 SB	85	2	1992	26	20
Homestead NB	I-55 NB	28	8	1998	20	17
Homestead SB	I-55 SB	28	8	1998	20	16
Coalfield NB	I-55 NB	65	6	1985	33	18
Coalfield SB	I-55 SB	65	6	1985	33	18
RailSplitter NB	I-55 NB	102	6	1963	55	55
RailSplitter SB	I-55 SB	104	6	1963	55	55
Funks Grove	I-55 NB/SB	149	5	1985	33	7
Limestone NB	I-55 NB	194	3	1988	30	28
Limestone SB	I-55 SB	194	3	1988	30	28
Trail of Tears NB	I-57 NB	32	9	1971	47	40
Trail of Tears SB	I-57 SB	32	9	1971	47	39
Rend Lake NB	I-57 NB	74	9	1985	33	21
Rend Lake SB	I-57 SB	79	9	1985	33	21
Post Oak NB	I-57 NB	114	8	1985	33	8
Post Oak SB	I-57 SB	114	8	1985	33	7
Green Creek NB	I-57 NB	167	7	1978	40	12
Green Creek SB	I-57 SB	167	7	1978	40	12
Illini Prairie NB	I-57 NB	222	5	1968	50	37
Illini Prairie SB	I-57 SB	222	5	1968	50	37
Main Line Station NB	I-57 NB	269	3	1975	43	24
Main Line Station SB	I-57 SB	269	3	1975	43	24
Prairie View NB	I-57 NB	333	1	1970	48	35
Prairie View SB	I-57 SB	333	1	1970	48	35

Rest Area Name	Route / Direction	Mile Post	IDOT District	Year Built	Age (In 2018)	Adjusted Age
Gateway EB	I-64 EB	25	8	1991	27	6
Gateway WB	I-64 WB	25	8	1991	27	5
Goshen Road EB	I-64 EB	83	9	1991	27	26
Goshen Road WB	I-64 WB	85	9	1991	27	26
Skeeter WB	I-64 WB	130	9	1981	37	27
Silver Lake EB	I-70 EB	26	8	1998	20	11
Silver Lake WB	I-70 WB	27	8	1998	20	13
National Trail EB	I-70 EB	86	7	1989	29	27
National Trail WB	I-70 WB	86	7	1989	29	27
Cumberland Road WB	I-70 WB	149	7	1975	43	31
Pride of the Prairie EB	I-72 EB	152	7	1998	20	0
Pride of the Prairie WB	I-72 WB	152	7	1998	20	0
KrisdalaBaka EB	I-74 EB	28	2	1987	31	13
KrisdalaBaka WB	I-74 WB	28	2	1987	31	13
Spoon River EB	I-74 EB	62	4	1974	44	44
Spoon River WB	I-74 WB	62	4	1974	44	44
Mackinaw Dells EB	I-74 EB	114	4	1972	46	33
Mackinaw Dells WB	I-74 WB	114	4	1972	46	32
Farm Land EB	I-74 EB	156	5	1994	24	14
Farm Land WB	I-74 WB	156	5	1994	24	14
Salt Kettle WB	I-74 WB	208	4	1986	32	7
Mississippi Rapids EB	I-80 EB	1	2	1980	38	18
Great Sauk Trail EB	I-80 EB	51	3	1972	46	10
Great Sauk Trail WB	I-80 WB	51	3	1972	46	10
Three Rivers EB	I-80 EB	117	3	1972	46	15
Three Rivers WB	I-80 WB	118	3	1972	46	15
Turtle Creek SB	I-90 SB	1	2	1985	33	8

Source: Illinois DOT Districts, November 2017 – February 2018. Adjusted Age calculated by HDR based on actual age and estimated renovation/reconstruction costs, August 2018.

Figure 2-2. Rest Area Age



Source: Illinois DOT, November 2017 – February 2018.

2.1.3 Rest Area Spacing

Providing travelers with services and places to rest with regular frequency along the Interstate is an expectation by the traveling public and promotes safe travel. The order of magnitude for rest area spacing varies across Illinois. Rest area spacing for Illinois DOT rest areas was determined by reviewing the following variables:

- Distance to nearest rest area on same route.
- Distance to nearest rest area on a different route when the rest area route does not continue upstream/downstream of the rest area.
- Distances to multiple rest areas on likely through routes when an Interstate-Interstate junction is between rest areas (weighted by mainline volumes).
- Distance to major Interstate junction when an upstream/downstream rest area is not present.
- For single-point rest areas that serve both directions of travel, the spacing for both directions of travel were reviewed.

The average distance between rest areas is roughly 52 miles. For reference, the American Association of State Highways and Transportation Officials (AASHTO) recommends rest area spacing at approximately one hour of drive time between rest areas, which is roughly 70 miles in Illinois based on posted speed of 70 miles per hour on rural Interstate. The AASHTO guidance is found in the *Guide for Development of Rest Areas on Major Arterials and Freeways*, 2001). The shortest distance between rest areas is 8 miles to rest areas in adjacent states, south of the Fort Massac rest area on I-24 and west of the Mississippi Rapids rest area on I-80. The shortest distances between rest areas are generally at locations near the state boundary, where there is another rest area nearby in the adjacent state. The longest distance between rest areas is 127 miles, south of the Homestead SB rest area to the Fruitland SB rest area on I-55 in Missouri (the weighted average spacing south of the Homestead SB rest area is 87 miles to three rest areas in Missouri). Rest area spacing is provided in **Table 2-4**. Note that the spacing listed in **Table 2-4** may include an average distance to multiple rest areas based on likely routes taken by travelers. Average upstream/downstream rest area spacing is also shown graphically in **Figure 2-3**. In **Figure 2-3**, the average spacing at the single-point rest areas is an average for both directions of travel.

The average distance between rest areas is roughly 52 miles, and the spacing ranges from 8 miles to 127 miles.

Table 2-4. Rest Area Spacing

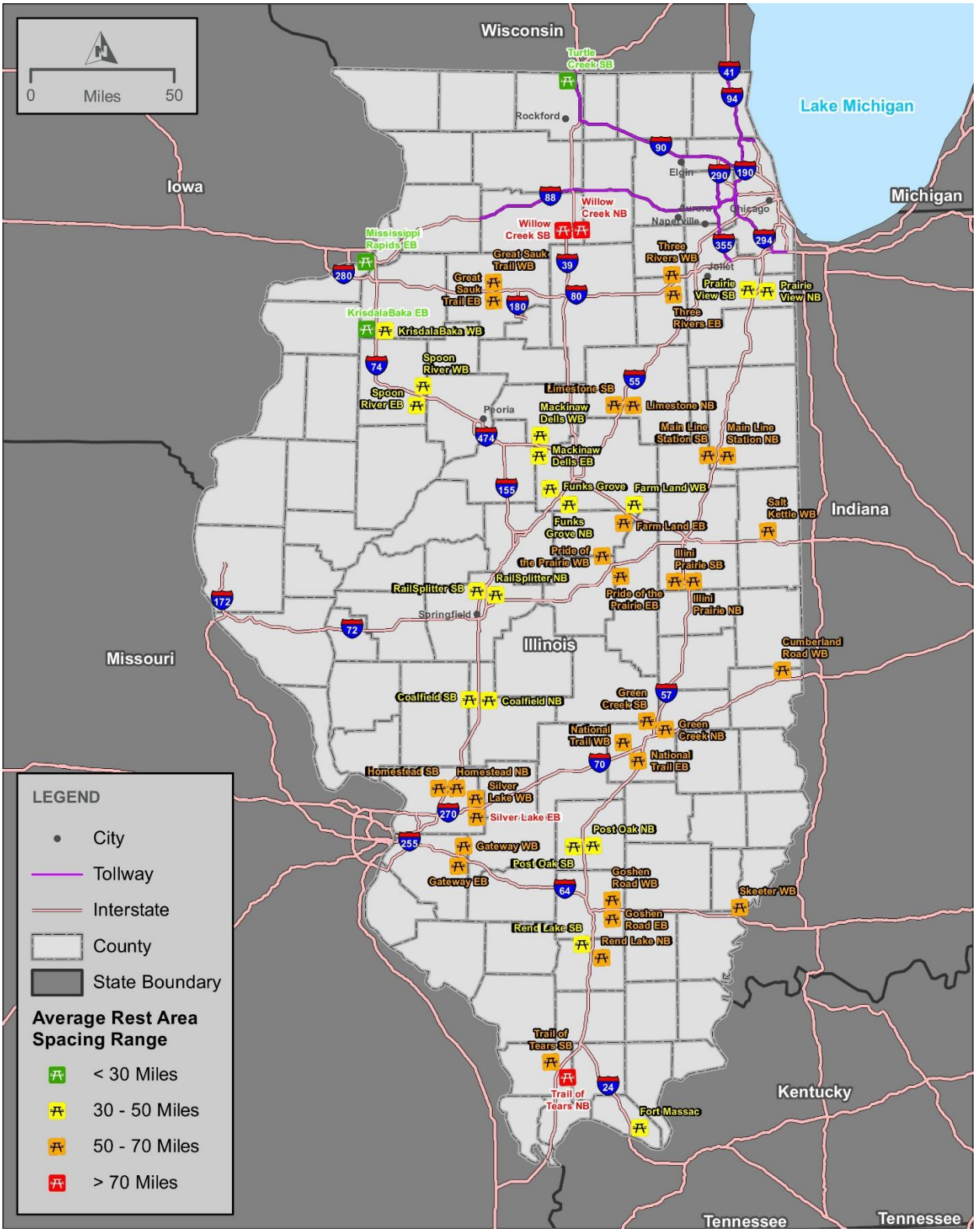
Rest Area Name	Route / Direction	Mile Post	Nearest Rest Area (miles)		
			Upstream	Downstream	Average
Fort Massac [1]	I-24 EB	37	71	8	38.5
	I-24 WB		8	67	59.5
Willow Creek NB	I-39 NB	85	107	56	81.5
Willow Creek SB	I-39 SB	85	54	107	80.5
Homestead NB	I-55 NB	28	77	37	57
Homestead SB	I-55 SB	28	37	87	62
Coalfield NB	I-55 NB	65	37	37	37
Coalfield SB	I-55 SB	65	39	37	38
RailSplitter NB	I-55 NB	102	37	47	42
RailSplitter SB	I-55 SB	104	45	39	42
Funks Grove [2]	I-55 NB	149	47	45	46
	I-55 SB		45	45	45
Limestone NB	I-55 NB	194	45	57	51
Limestone SB	I-55 SB	194	57	45	51
Trail of Tears NB	I-57 NB	32	100	42	71
Trail of Tears SB	I-57 SB	32	47	78	62.5
Rend Lake NB	I-57 NB	74	63	40	51.5
Rend Lake SB	I-57 SB	79	35	64	49.5
Post Oak NB	I-57 NB	114	40	53	46.5
Post Oak SB	I-57 SB	114	53	35	44
Green Creek NB	I-57 NB	167	53	55	54
Green Creek SB	I-57 SB	167	55	53	54
Illini Prairie NB	I-57 NB	222	55	47	51
Illini Prairie SB	I-57 SB	222	47	55	51
Main Line Station NB	I-57 NB	269	47	64	55.5
Main Line Station SB	I-57 SB	269	64	47	55.5
Prairie View NB	I-57 NB	333	64	12	38
Prairie View SB	I-57 SB	333	12	64	38
Gateway EB	I-64 EB	25	78	58	68
Gateway WB	I-64 WB	25	60	78	69
Goshen Road EB	I-64 EB	83	58	55	56.5
Goshen Road WB	I-64 WB	85	45	60	52.5
Skeeter WB	I-64 WB	130	59	45	52
Silver Lake EB	I-70 EB	26	80	60	70
Silver Lake WB	I-70 WB	27	59	80	69.5
National Trail EB	I-70 EB	86	60	70	65
National Trail WB	I-70 WB	86	63	59	61
Cumberland Road WB	I-70 WB	149	72	63	67.5
Pride of the Prairie EB	I-72 EB	152	50	74	62
Pride of the Prairie WB	I-72 WB	152	60	50	55
KrisdalaBaka EB	I-74 EB	28	23	34	28.5
KrisdalaBaka WB	I-74 WB	28	32	33	32.5
Spoon River EB	I-74 EB	62	34	52	43
Spoon River WB	I-74 WB	62	52	32	42
Mackinaw Dells EB	I-74 EB	114	52	42	47
Mackinaw Dells WB	I-74 WB	114	42	52	47
Farm Land EB	I-74 EB	156	42	65	53.5
Farm Land WB	I-74 WB	156	52	42	47
Salt Kettle WB	I-74 WB	208	68	52	60
Mississippi Rapids EB	I-80 EB	1	8	50	29
Great Sauk Trail EB	I-80 EB	51	50	66	58
Great Sauk Trail WB	I-80 WB	51	67	58	62.5
Three Rivers EB	I-80 EB	117	66	42	54
Three Rivers WB	I-80 WB	118	41	67	54
Turtle Creek SB	I-90 SB	1	21	32	26.5

Source: Illinois DOT website and measurement from Google Maps, accessed by HDR April 2018.
Note: Upstream and downstream distances based on: distance to nearest rest area on same route, distance to nearest rest area on a different route when the rest area route does not continue upstream/downstream of the rest area, distances to multiple rest areas on likely through routes when an Interstate-Interstate junction is between rest areas (weighted by mainline volumes), or distance to major Interstate junction when an upstream/downstream rest area is not present.

[1] Fort Massac rest area serves both directions of travel on I-24 at mile post 37. Upstream and downstream distances to adjacent rest areas varies by direction of travel.

[2] Funks Grove rest area serves both directions of travel on I-55 at mile post 149. Upstream and downstream distances to adjacent rest areas varies by direction of travel.

Figure 2-3. Average Upstream/Downstream Rest Area Spacing



Source: Illinois DOT website and measurement from Google Maps, accessed by HDR April 2018.

2.1.4 Rest Area Traffic and Parking Utilization

The amount of traffic at a rest area and the utilization of provided truck parking is largely dependent on the amount of mainline Interstate traffic adjacent to the rest area and percentage of traffic that are heavy commercial vehicles (trucks). Traffic counts were collected at 16 rest area locations, and rest area traffic volumes at the remaining locations were estimated based on the sampling of rest area counts and mainline traffic volumes near each rest area. The rest area with the least amount of traffic is the Mississippi Rapids EB rest area on I-74 at mile post 1, with 125 average daily traffic (ADT). This rest area is eight miles east of the rest area in Davenport, Iowa and trucks are not allowed at this rest area. The Mississippi Rapids EB rest area is also closed overnight via a physical gate. These are the primary reasons for the low amount of traffic at the Mississippi Rapids rest area. The rest area with the largest amount of traffic is the Fort Massac rest area on I-24 at mile post 37, with 2,325 ADT. The Fort Massac rest area has the highest amount of traffic because it is a single-point rest area that serves both directions of travel on I-24 at a location with a relatively large amount of mainline traffic. The directional rest area with the largest amount of traffic is the Turtle Creek rest area on I-90 at mile post 1, with 1,833 ADT. The rest area capture rate (proportion of mainline traffic accessing the rest area) is generally 7-10% of the mainline ADT. Rest area traffic volumes are provided in **Table 2-5**. Rest area traffic volumes are also shown graphically in **Figure 2-4**.

Rest area traffic volumes largely range from 500 to 1,500 vehicles per day. This generally equates to 7-10% of mainline ADT.

Truck parking observations were collected at 39 rest area locations during peak truck parking periods overnight. Observations included documentation of trucks parked in the designated truck parking spaces versus those parked on ramp shoulders and in other non-designated truck parking areas. Truck parking utilization was calculated by dividing the total number of trucks parked at the rest area by the number of designated truck parking spaces. Truck parking utilization varied greatly among rest areas because of the wide range of truck parking spaces provided at each rest area. Observed truck parking utilization varied from 67% at the KrisdalaBaka WB rest area on I-74 near mile post 30 to 533% at the Railsplitter SB rest area on I-55 near mile post 104. Reasons for the disparity between utilization at these locations are that the KrisdalaBaka WB rest area has 15 truck parking spaces compared to only 6 spaces at the Railsplitter SB rest area, and the mainline Interstate volume at the Railsplitter SB rest area is more than double the mainline volume at the KrisdalaBaka WB rest area. Of the 39 observed locations, 27 locations were over-capacity (truck parking utilization above 100%), with trucks parking on ramp shoulders and in other non-designated truck parking areas.

Observed truck parking utilization at Illinois rest areas ranged from 67% to 533%, with 27 out of 39 observed locations over-capacity.

The truck parking need for each rest area was also calculated from Illinois DOT Design Guidelines for Interstate Rest Area Parking Requirements Figure 16-1.C, which is based on mainline volume, percent trucks on the mainline, and estimates on proportion of traffic using the rest area and dwell time. On average, the observed truck parking roughly

matches the calculated truck parking need. For locations where truck parking observations were not collected, truck parking utilization was estimated by dividing the calculated truck parking need by the number of truck parking spaces. Peak truck parking data and utilization is provided in **Table 2-6**. Peak truck parking utilization is also shown graphically in **Figure 2-5**.

Table 2-5. Rest Area Traffic Volumes

Rest Area Name	Route / Direction	Mile Post	ADT [1]	Truck %	Interstate Mainline		Capture Rate
					ADT [1]	Truck %	
Fort Massac [2]	I-24 EB/WB	37	2,325 [4]	40% [4]	31,700	27%	7% [4]
Willow Creek NB	I-39 NB	85	832	50%	7,800	54%	11%
Willow Creek SB	I-39 SB	85	792	48%	7,800	54%	10%
Homestead NB	I-55 NB	28	1,095 [4]	30% [4]	15,750	19%	7% [4]
Homestead SB	I-55 SB	28	1,095 [4]	30% [4]	15,750	19%	7% [4]
Coalfield NB	I-55 NB	65	722	37%	13,200	28%	5%
Coalfield SB	I-55 SB	65	844	34%	13,200	28%	6%
RailSplitter NB	I-55 NB	102	1,154 [4]	37% [4]	16,000	24%	7% [4]
RailSplitter SB	I-55 SB	104	1,154 [4]	37% [4]	16,000	24%	7% [4]
Funks Grove [3]	I-55 NB	149	860 [4]	41% [4]	11,650	28%	7% [4]
	I-55 SB		860 [4]	41% [4]	11,650	28%	7% [4]
Limestone NB	I-55 NB	194	719	48%	11,250	30%	6%
Limestone SB	I-55 SB	194	863	42%	11,250	30%	8%
Trail of Tears NB	I-57 NB	32	530 [4]	59% [4]	6,450	44%	8% [4]
Trail of Tears SB	I-57 SB	32	530 [4]	59% [4]	6,450	44%	8% [4]
Rend Lake NB	I-57 NB	74	1,003 [4]	59% [4]	12,200	44%	8% [4]
Rend Lake SB	I-57 SB	79	1,003 [4]	59% [4]	12,200	44%	8% [4]
Post Oak NB	I-57 NB	114	822 [4]	57% [4]	10,150	42%	8% [4]
Post Oak SB	I-57 SB	114	822 [4]	57% [4]	10,150	42%	8% [4]
Green Creek NB	I-57 NB	167	626 [4]	52% [4]	7,950	38%	8% [4]
Green Creek SB	I-57 SB	167	626 [4]	52% [4]	7,950	38%	8% [4]
Illini Prairie NB	I-57 NB	222	629	52%	10,500	30%	6%
Illini Prairie SB	I-57 SB	222	764	43%	10,500	30%	7%
Main Line Station NB	I-57 NB	269	697 [4]	47% [4]	8,400	36%	8% [4]
Main Line Station SB	I-57 SB	269	697 [4]	47% [4]	8,400	36%	8% [4]
Prairie View NB	I-57 NB	333	1,117 [4]	32% [4]	15,900	20%	7% [4]
Prairie View SB	I-57 SB	333	1,117 [4]	32% [4]	15,900	20%	7% [4]

Rest Area Name	Route / Direction	Mile Post	ADT [1]	Truck %	Interstate Mainline		Capture Rate
					ADT [1]	Truck %	
Gateway EB	I-64 EB	25	1,135 [4]	40% [4]	15,450	27%	7% [4]
Gateway WB	I-64 WB	25	1,135 [4]	40% [4]	15,450	27%	7% [4]
Goshen Road EB	I-64 EB	83	589	41%	5,850	30%	10%
Goshen Road WB	I-64 WB	85	582	70%	5,850	30%	10%
Skeeter WB	I-64 WB	130	568 [4]	51% [4]	7,250	37%	8% [4]
Silver Lake EB	I-70 EB	26	853	51%	11,350	35%	8%
Silver Lake WB	I-70 WB	27	894	46%	11,350	35%	8%
National Trail EB	I-70 EB	86	848 [4]	52% [4]	10,800	37%	8% [4]
National Trail WB	I-70 WB	86	848 [4]	52% [4]	10,800	37%	8% [4]
Cumberland Road WB	I-70 WB	149	938 [4]	64% [4]	11,050	50%	8% [4]
Pride of the Prairie EB	I-72 EB	152	416 [4]	36% [4]	5,800	24%	7% [4]
Pride of the Prairie WB	I-72 WB	152	416 [4]	36% [4]	5,800	24%	7% [4]
KrisdalaBaka EB	I-74 EB	28	554 [4]	51% [4]	7,100	36%	8% [4]
KrisdalaBaka WB	I-74 WB	28	554 [4]	51% [4]	7,100	36%	8% [4]
Spoon River EB	I-74 EB	62	526 [4]	43% [4]	7,050	29%	7% [4]
Spoon River WB	I-74 WB	62	526 [4]	43% [4]	7,050	29%	7% [4]
Mackinaw Dells EB	I-74 EB	114	920 [4]	28% [4]	13,400	17%	7% [4]
Mackinaw Dells WB	I-74 WB	114	920 [4]	28% [4]	13,400	17%	7% [4]
Farm Land EB	I-74 EB	156	839	48%	10,350	32%	8%
Farm Land WB	I-74 WB	156	675	51%	10,350	32%	7%
Salt Kettle WB	I-74 WB	208	925 [4]	43% [4]	12,400	29%	7% [4]
Mississippi Rapids EB	I-80 EB	1	125 [5]	0% [5]	13,400	41%	1% [5]
Great Sauk Trail EB	I-80 EB	51	760	59%	9,350	47%	8%
Great Sauk Trail WB	I-80 WB	51	723	58%	9,350	47%	8%
Three Rivers EB	I-80 EB	117	1,439 [4]	50% [4]	18,500	36%	8% [4]
Three Rivers WB	I-80 WB	118	1,439 [4]	50% [4]	18,500	36%	8% [4]
Turtle Creek SB	I-90 SB	1	1,833 [4]	46% [4]	24,150	32%	8% [4]

Source: Rest area count data collected with video, Hurst-Rosche, October 2017 – December 2017. Interstate mainline data obtained from Illinois DOT Average Daily Traffic Counts GIS application, February 2018.

1 Average Daily Traffic.

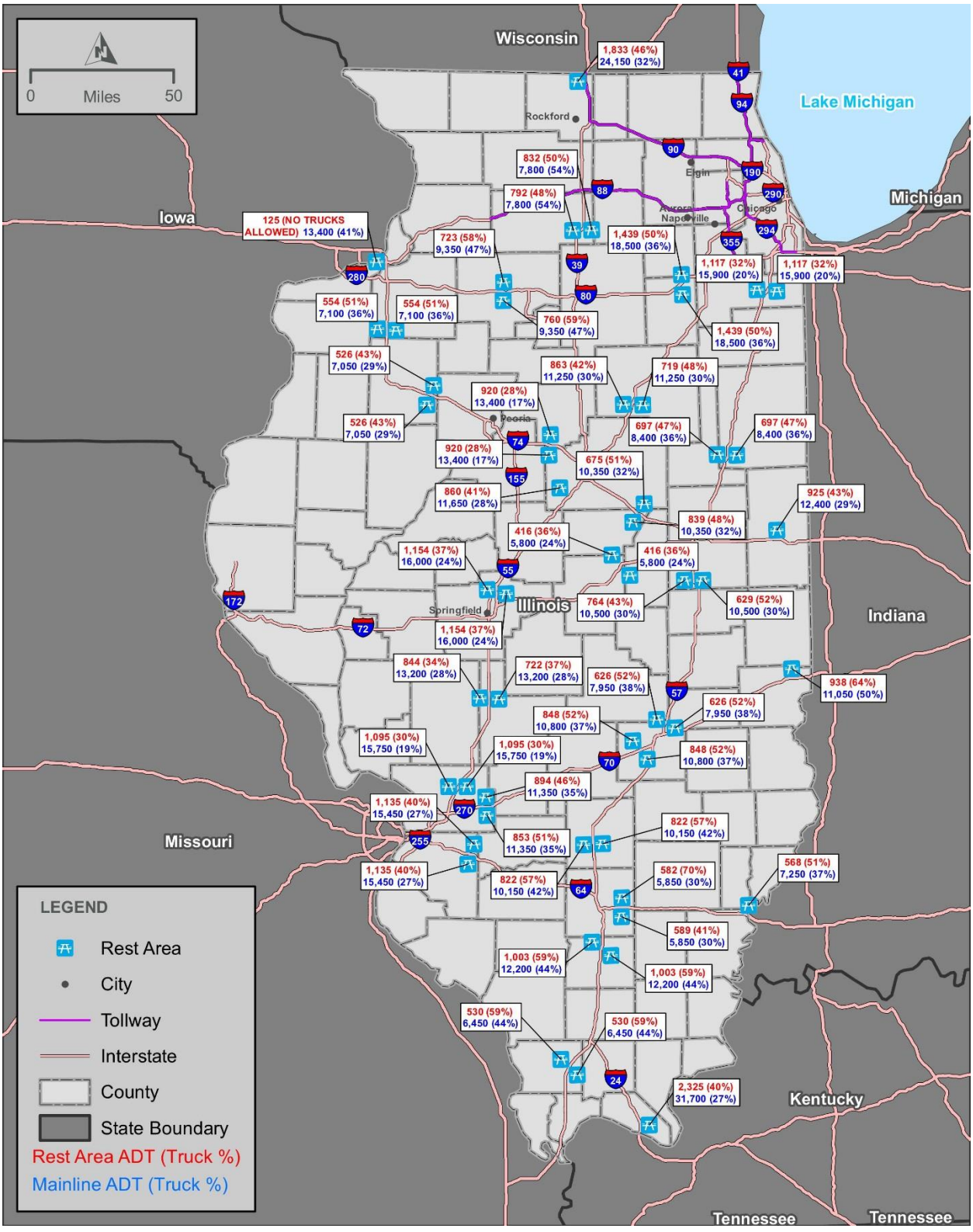
2 Fort Massac rest area serves both directions of travel on I-24 at mile post 37.

3 Funks Grove rest area serves both directions of travel on I-55 at mile post 149. Ramps to/from the rest area for each direction of travel are independent from one another.

4 Rest area traffic volumes estimated from sampling of 48-hour count data collected at 16 of Illinois DOT rest areas and Interstate mainline volumes.

5 Rest area traffic volume from Illinois DOT Average Daily Traffic Counts GIS application, year 2015 count. Trucks not allowed at Mississippi Rapids EB rest area.

Figure 2-4. Rest Area Traffic Volumes



Source: Rest area count data collected with video, Hurst-Rosche, October 2017 – December 2017. Interstate mainline data obtained from Illinois DOT Average Daily Traffic Counts GIS application, February 2018.

Table 2-6. Rest Area Peak Truck Parking

Rest Area Name	Route / Direction	Mile Post	Truck Parking Stalls	Calculated Truck Parking Needs [1]	Trucks Parked (Peak)		Peak Truck Parking Utilization [2]
					In Stalls	Out of Stalls	
Fort Massac [3]	I-24 EB/WB	37	18	42	-	-	232% [5]
Willow Creek NB	I-39 NB	85	42	41	29	3	76%
Willow Creek SB	I-39 SB	85	42	41	42	25	160%
Homestead NB	I-55 NB	28	40	30	40	18	145%
Homestead SB	I-55 SB	28	48	30	37	0	77%
Coalfield NB	I-55 NB	65	28	37	20	4	86%
Coalfield SB	I-55 SB	65	28	37	20	29	175%
RailSplitter NB	I-55 NB	102	6	38	6	13	317%
RailSplitter SB	I-55 SB	104	6	38	6	26	533%
Funks Grove [4]	I-55 NB	149	20	32	9	9	90%
	I-55 SB		20	32	20	12	160%
Limestone NB	I-55 NB	194	36	33	36	17	147%
Limestone SB	I-55 SB	194	29	33	25	4	100%
Trail of Tears NB	I-57 NB	32	20	28	-	-	141% [5]
Trail of Tears SB	I-57 SB	32	20	28	-	-	141% [5]
Rend Lake NB	I-57 NB	74	34	54	-	-	158% [5]
Rend Lake SB	I-57 SB	79	34	54	-	-	158% [5]
Post Oak NB	I-57 NB	114	18	42	-	-	234% [5]
Post Oak SB	I-57 SB	114	18	42	18	27	250%
Green Creek NB	I-57 NB	167	15	30	15	25	267%
Green Creek SB	I-57 SB	167	16	30	16	45	381%
Illini Prairie NB	I-57 NB	222	21	31	21	10	148%
Illini Prairie SB	I-57 SB	222	21	31	20	19	186%
Main Line Station NB	I-57 NB	269	25	30	16	6	88%
Main Line Station SB	I-57 SB	269	27	30	21	5	96%
Prairie View NB	I-57 NB	333	20	32	20	5	125%
Prairie View SB	I-57 SB	333	19	32	19	1	105%

Rest Area Name	Route / Direction	Mile Post	Truck Parking Stalls	Calculated Truck Parking Needs [1]	Trucks Parked (Peak)		Peak Truck Parking Utilization [2]
					In Stalls	Out of Stalls	
Gateway EB	I-64 EB	25	27	41	-	-	152% [5]
Gateway WB	I-64 WB	25	26	41	26	10	138%
Goshen Road EB	I-64 EB	83	20	17	-	-	87% [5]
Goshen Road WB	I-64 WB	85	20	17	-	-	87% [5]
Skeeter WB	I-64 WB	130	21	26	-	-	125% [5]
Silver Lake EB	I-70 EB	26	21	39	18	0	86%
Silver Lake WB	I-70 WB	27	22	39	22	8	136%
National Trail EB	I-70 EB	86	60	40	29	0	48%
National Trail WB	I-70 WB	86	18	40	-	-	220% [5]
Cumberland Road WB	I-70 WB	149	39	54	-	-	140% [5]
Pride of the Prairie EB	I-72 EB	152	16	13	16	0	100%
Pride of the Prairie WB	I-72 WB	152	17	13	14	2	94%
KrisdalaBaka EB	I-74 EB	28	14	25	14	3	121%
KrisdalaBaka WB	I-74 WB	28	15	25	9	1	67%
Spoon River EB	I-74 EB	62	13	20	13	4	131%
Spoon River WB	I-74 WB	62	12	20	12	5	142%
Mackinaw Dells EB	I-74 EB	114	25	23	12	0	48%
Mackinaw Dells WB	I-74 WB	114	18	23	18	19	206%
Farm Land EB	I-74 EB	156	42	33	30	18	114%
Farm Land WB	I-74 WB	156	42	33	42	15	136%
Salt Kettle WB	I-74 WB	208	20	36	-	-	179% [5]
Mississippi Rapids EB	I-80 EB	1	0 [6]	49	No Trucks Allowed		
Great Sauk Trail EB	I-80 EB	51	39	43	29	8	95%
Great Sauk Trail WB	I-80 WB	51	47	43	38	9	100%
Three Rivers EB	I-80 EB	117	31	65	24	19	139%
Three Rivers WB	I-80 WB	118	39	65	34	10	113%
Turtle Creek SB	I-90 SB	1	0 [6]	76	No Trucks Allowed		

Source: Rest area truck parking observations conducted by Hurst-Rosche, September 2017 and December 2017.

1 Truck parking needs calculated from Illinois DOT Design Guidelines for Interstate Rest Area Parking Requirements Figure 16-1.C, February 2018.

2 Truck parking utilization calculated by dividing the total number of trucks parked at the rest area during peak observed conditions (in stall and out of stall count) by the number of truck parking stalls, unless noted otherwise.

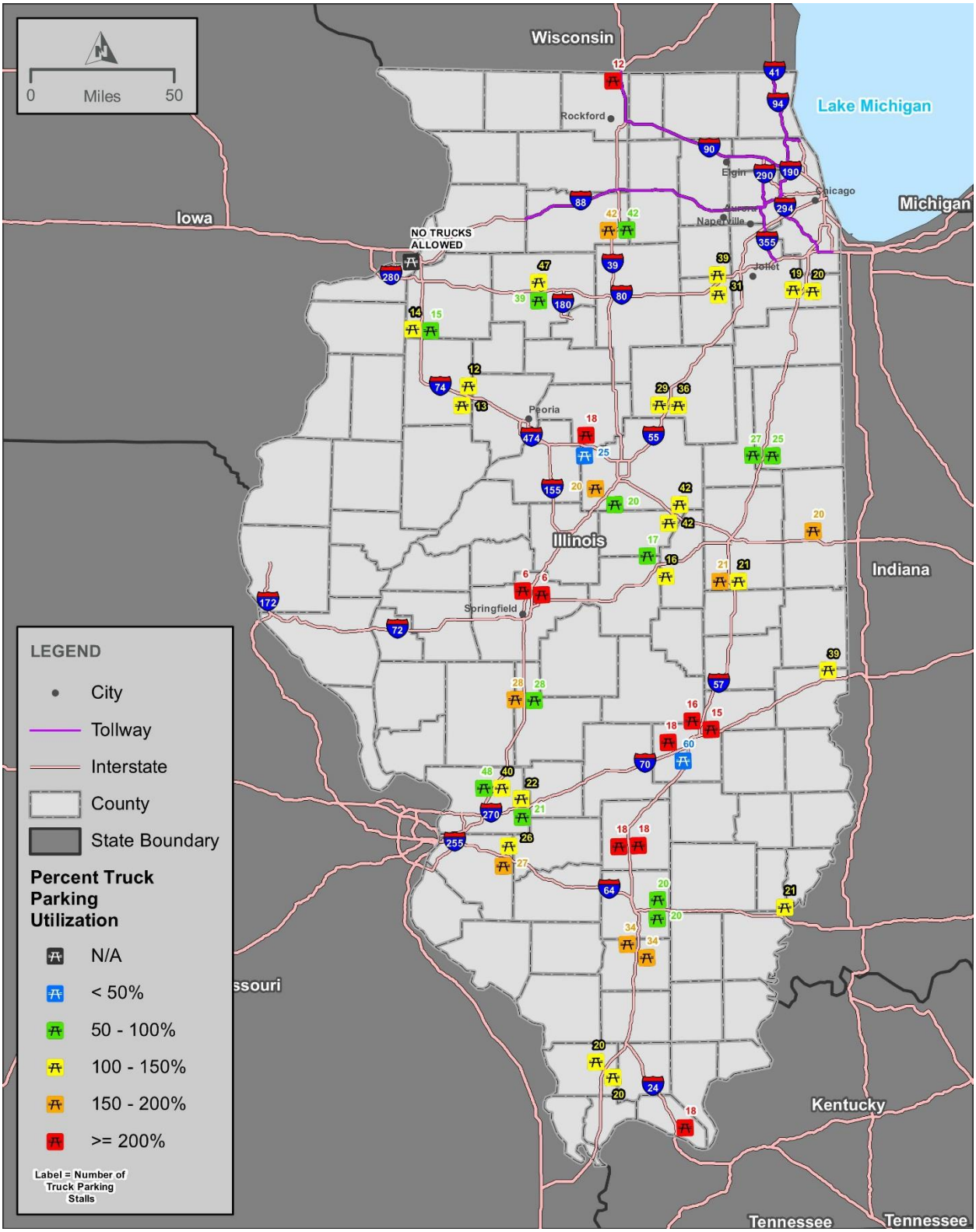
3 Fort Massac rest area serves both directions of travel on I-24 at mile post 37.

4 Funks Grove rest area serves both directions of travel on I-55 at mile post 149. Rest area parking areas for each direction of travel are independent from one another.

5 No truck parking observations conducted for this location; truck parking utilization estimated by dividing the calculated truck parking needs by the number of truck parking spaces.

6 Trucks not allowed at Mississippi Rapids EB and Turtle Creek SB rest areas.

Figure 2-5. Rest Area Peak Truck Parking Utilization



Source: Rest area truck parking observations conducted by Hurst-Rosche, September 2017 and December 2017.

2.1.5 Illinois DOT Rest Area Comparison to Adjacent States

Rest area systems in adjacent states were reviewed to determine how Illinois DOT's rest area system compares with other state rest area systems with similar type of travel and climate. Rest area systems in Indiana, Iowa, Michigan and Wisconsin were used for comparison to Illinois DOT rest areas. Nearly all rest areas provide the most basic services of restrooms (including handicap accessible stalls), parking, drinking water, traveler information and picnic areas. For this review, the rest area metrics compared between states included:

- Rest area spacing
- Rest area age
- Truck parking spaces
- Car parking spaces
- % with family assist restrooms
- % with weather
- % with TTY

The comparison of the above metrics between Illinois DOT rest areas and those in adjacent states is provided in **Table 2-7**.

Table 2-7. Illinois DOT Rest Area System Compared to Adjacent States

Metric	Illinois	Adjacent States					
		Indiana [1]	Iowa	Michigan [2]	Missouri	Wisconsin	Average
Number of Rest Areas	53	30	37	78	22	29	42
Average Rest Area Spacing	52	57	44	40	85	62	57
# of Rest Areas per 100 miles of Interstate	2.43	2.33	4.74	3.87	1.59	3.91	3.15
Oldest Rest Area Age	55	47	52	53	- [3]	49	51
Average Rest Area Age	35	32	31	24	- [3]	30	30
Average Truck Parking Stalls	25	43	18	20	31	26	27
Average Car Parking Stalls	36	56	43	57	59	64	53
% with Family Assist Restrooms	28%	30%	46%	46%	32%	45%	38%
% with Weather	94%	- [3]	92%	14%	- [3]	86%	72%
% with TTY	64%	- [3]	95%	69% [4]	77% [4]	83%	78%

Source: HDR, May-August 2018.

[1] Does not include rest areas on Indiana Toll Road.

[2] 48 rest areas located on the Interstate System. 30 rest areas located on US or other State highways. Michigan rest area statistics based on all 78 rest areas.

[3] Information not obtained.

[4] Percentage of rest areas with payphones. Assumed to also have TTY based on Federal policy.

Based on the information shown in **Table 2-7**, the following summarize the Illinois DOT rest area system compared to systems in adjacent states:

- The average rest area spacing in Illinois, 52 miles, is similar to that in compared adjacent states.
- The average rest area age in Illinois, 35 years, is at least three years greater than that in all compared adjacent states and fiver years greater than the average.
- The average number of truck parking stalls at Illinois DOT rest areas, 25 stalls, is similar to that in compared adjacent states.
- The average number of car parking stalls at Illinois DOT rest areas, 36 stalls, is at least seven stalls lower than that in compared adjacent states.
- The percentage of rest areas with family assist restrooms at Illinois DOT rest areas, 28%, is lower than that in all compared adjacent states.
- The percentage of rest areas with weather information at Illinois DOT rest areas, 94%, is greater than that in all compared adjacent states.
- The percentage of rest areas with TTY services at Illinois DOT rest areas, 64%, is lower than that in all compared adjacent states.

2.2 Alternative Service Locations

Alternative service locations (ASLs) are non-rest area locations that provide travelers with additional opportunities to find similar services that are provided at full service rest areas. These are typically in the form of truck stops and travel plazas. ASLs can also include gas stations and restaurants; however, the availability of truck parking and 24-hour service is typically limited at those locations. In Illinois, ASLs also includes Oasis Travel Plazas on the Illinois Tollway, though service locations on the Illinois Tollway don't provide alternative service locations for the Illinois DOT rest areas since these are tolled roadways. For this study, truck stops and travel plazas were identified as ASLs at service interchanges along Illinois DOT rest area routes. Additionally, only ASLs located within a quarter-mile of the Interstate were identified. A total of 91 ASLs were identified along Illinois DOT rest area routes. The total number of ASLs by route are provided in **Table 2-8**. The location for development of ASLs is largely based on the demand for services, which is closely tied to the amount of traffic on the Interstate. In Illinois, this is evident by the high density of ASLs near Interstate-to-Interstate junctions and along Interstate segments with high ADT relative to other segments. The locations of ASLs along Illinois rest area routes are shown graphically in **Figure 2-6**, in conjunction with a display of truck parking at ASLs in the following section.

Table 2-8. ASLs along Illinois DOT Rest Area Routes

Route	Interstate Miles in Illinois [1]	Total Number of ASLs [2]
I-24	39	0
I-39	141	8
I-55	294	23
I-57	358	25
I-64	130	5
I-70	160	4
I-72	182	5
I-74	220	8
I-80	157	10
I-90	3 [3]	3

Source: Hurst-Rosche, September/October 2017.

1 Excludes segments on the Illinois Tollway system.

2 Only includes ASLs on non-tolled sections of Interstates in Illinois. For sections of overlapped Interstate routes, ASLs are only listed for the route with the lower route number.

3 I-90 has three miles of non-tolled Interstate south of the Wisconsin border, the remainder of I-90 is either tolled or located in Chicago where there are no rest areas.

2.3 Truck Parking At Non-Rest Area Locations

Truck parking is viewed as one of the most critical services provided along Interstate routes based on the frequent over-utilization of provided spaces at rest areas and the national attention to the general shortage of truck parking capacity. Most truck drivers stopping for rest in Illinois park at non-rest area locations. The majority of truck parking provided along Illinois DOT rest area routes is located at ASLs. Additionally, truck drivers frequently park along the shoulder of service interchange ramps when truck parking at rest areas and ASLs are full and/or they are legally required to stop for rest due to hours of service requirements by the Federal Motor Carrier Safety Administration.

A survey of ASLs was conducted to determine the number of truck parking spaces provided at each location and which locations are consistently full overnight. There are roughly 7,900 truck parking spaces provided at ASLs along the Illinois DOT rest area routes. Roughly 50% of the ASLs report that truck parking is consistently full overnight, with 80% or more ASLs along I-70 and I-80 reporting as consistently full.

There are roughly 7,900 truck parking spaces provided at ASLs along the Illinois DOT rest area routes. Half of the ASLs report that truck parking is consistently full overnight.

Additionally, overnight observations were conducted along roughly 60% of the Illinois DOT rest area routes to document trucks parked along service interchange ramps. I-70 had the highest amount of trucks observed parking along service interchange ramps, including one interchange with nine parked trucks.

A summary of ASL truck parking and trucks parking along service interchange ramps is provided in **Table 2-9**. Truck parking at ASLs is show graphically in **Figure 2-6**. Truck parking observed along service interchange ramps is shown graphically in **Figure 2-7**.

Table 2-9. Truck Parking at ASLs and Service Interchange Ramps

Route	Interstate Miles in Illinois [1]	Total Number of ASLs [2]	Total ASL Truck Parking Spaces [2]	Percentage of ASLs Reporting Truck Parking Consistently Full	Number of Trucks Parked along Service Interchange Ramps [3]
I-24	39	0	0	-	N/A [4]
I-39	141	8	811	50%	0
I-55	294	23	2,045	43%	10
I-57	358	25	2,268	52%	10
I-64	130	5	297	60%	19
I-70	160	4	326	100%	31
I-72	182	5	228	20%	N/A [4]
I-74	220	8	506	38%	11
I-80	157	10	1,114	80%	1
I-90	3 [5]	3	307	0%	N/A [4]

Source: Hurst-Rosche, September/October 2017.

1 Excludes segments on the Illinois Tollway system.

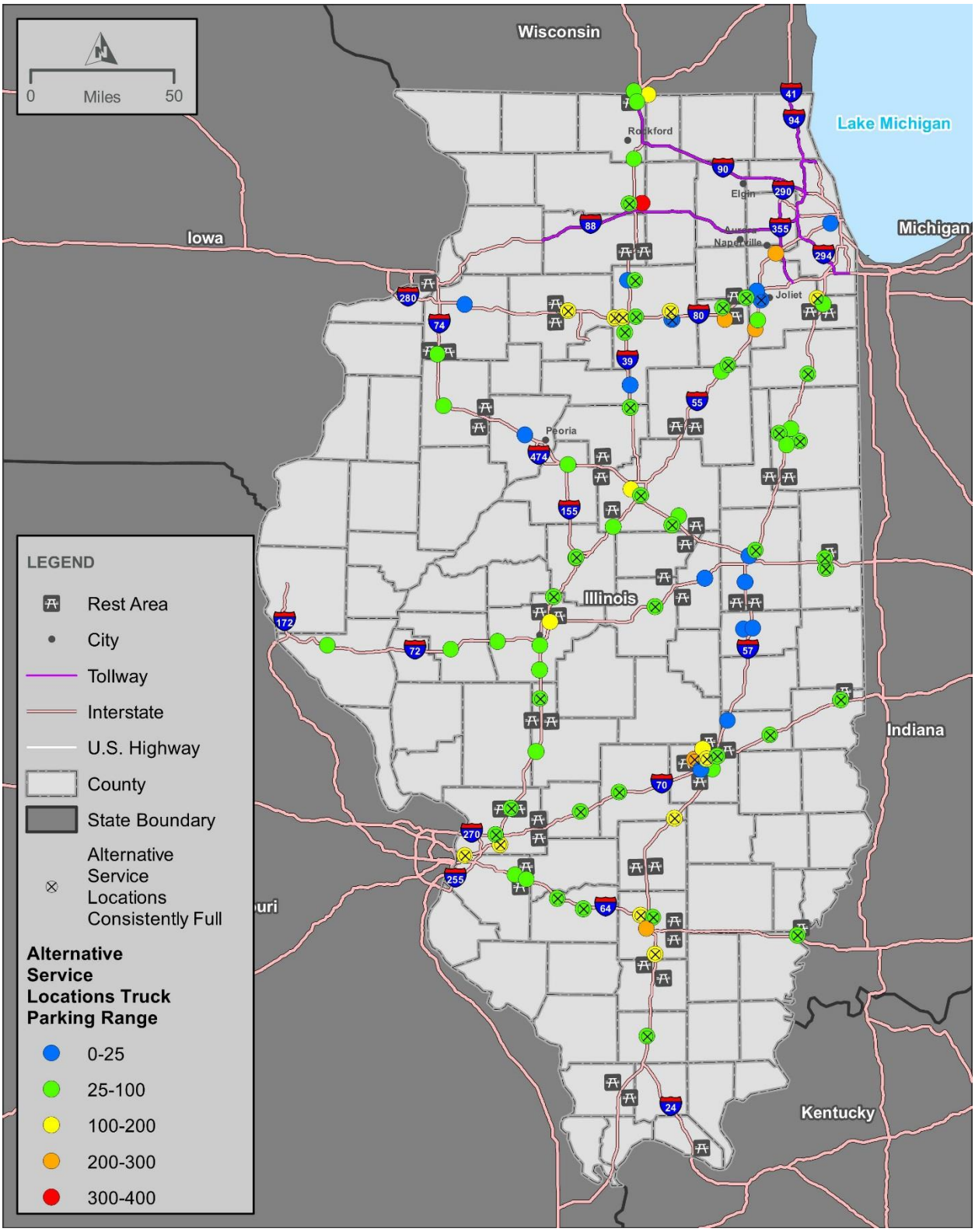
2 Only includes ASLs on non-tolled sections of Interstates in Illinois. For sections of overlapped Interstate routes, ASLs are only listed for the route with the lower route number.

3 Based on a snapshot of overnight observations conducted during a week in September 2017.

4 Overnight observations not recorded for this route.

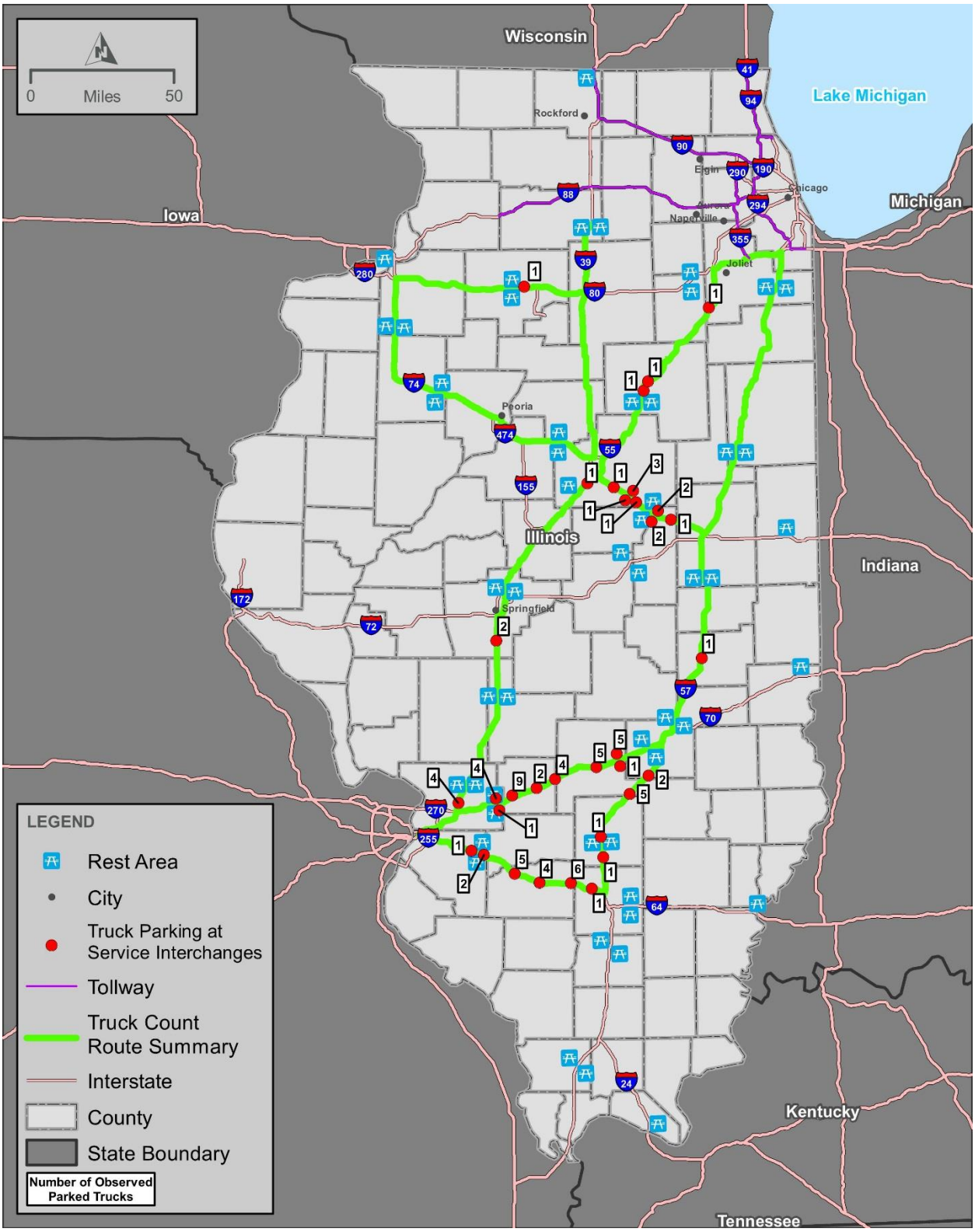
5 I-90 has three miles of non-tolled Interstate south of the Wisconsin border, the remainder of I-90 is either tolled or located in Chicago where there are no rest areas.

Figure 2-6. Truck Parking at ASLs



Source: Hurst-Rosche, September/October 2017.

Figure 2-7. Truck Parking along Service Interchange Ramps



Source: Hurst-Rosche, September/October 2017.

2.4 Fatigue-Related Crashes

Roadway segments with a high rate of fatigue-related crashes can be an indicator of locations that don't meet traveler service needs, particularly parking. A crash analysis was completed to determine Interstate segments in Illinois with high fatigue-related crash rates. Interstate crashes for five years (2011-2015) were used for the analysis. Details of the fatigue-related crash analysis can be found in the *Illinois DOT Statewide Rest Area Study Data Collection Report* (March 2018).

A total of 90 Illinois Interstate segments were included in the crash analysis. During the five-year period of 2011-2015, a total of 950 fatigue-related crashes were reported on the 90 Interstate segments that were evaluated. Segments that ranked in roughly the top 15% of the following categories within Illinois were identified:

- Total fatigue-related crash rate (summarized in **Table 2-10**).
- Fatal/injury (major or minor injury) fatigue-related crash rate (summarized in **Table 2-11**).
- Percentage of fatigue-related crashes involving a heavy commercial vehicle (HCV) (summarized in **Table 2-12**).
    - Note that the segment on I-72 west of Springfield, which reported 100% of fatigue-related crashes involving a HCV, was for one total fatigue-related crash on the segment.

The segments with the highest fatigue-related crash rankings are shown graphically in **Figure 2-8**. A total of 21 segments were identified in the high rankings of the three categories of fatigue-related crashes, with 11 segments reporting multiple categories or directions. Generally, the segments reported with high rankings in the three categories of fatigue-related crashes do not have a correlation to segments with high rest area spacing (roughly half of the 21 segments have rest area spacing greater than 50 miles, while half of the segments have less than 50-mile spacing). Of the 11 segments reporting multiple categories or direction, the six segments listed below also show multiple rest areas with over-capacity truck parking and/or ASLs with truck parking that is consistently full. These six segments also have rest area spacing greater than 50 miles.

- I-39 – I-80 to I-88
    - High heavy commercial vehicle % of fatigue-related crashes – northbound/southbound
- I-57 – I-64 to I-70
    - High fatal/injury fatigue-related crash rate – southbound
    - High heavy commercial vehicle % of fatigue-related crashes – northbound
- I-57 – I-70 to I-74
    - High total fatigue-related crash rate – northbound/southbound
    - High fatal/injury fatigue-related crash rate – northbound/southbound

- I-70 – I-57 to Indiana State Line
  - High total fatigue-related crash rate – westbound
  - High fatal/injury fatigue-related crash rate – eastbound
  - High heavy commercial vehicle % of fatigue-related crashes – eastbound/westbound
- I-74 – US 34 to I-474
  - High fatal/injury fatigue-related crash rate – westbound
  - High heavy commercial vehicle % of fatigue-related crashes – westbound
- I-74 – I-57 to Indiana State Line
  - High total fatigue-related crash rate – eastbound/westbound

Table 2-10. Top Ranked Total Fatigue-Related Crash Rate

Route / Direction	Segment Limits	Number of Service Interchanges	Number of ASLs	Number of Rest Areas	Total Fatigue-Related Crash Rate (Crashes/HMVMT [1])
I-172 NB	I-72 to US 24	4	0	0	3.47
I-88 WB	IL-47 to I-39	3	1	0	2.35
I-90 WB	IL-47 to I-39/90 Split	4	3	0	2.18
I-74 EB	I-57 to IN State Line	14	2	1	2.14
I-70 WB	IN State Line to I-57	11	6	1	1.99
I-57 SB	I-80 to I-74	23	6	2	1.91
I-155 SB	I-74 to I-55	9	0	0	1.88
I-55 NB	I-55/74 Split to I-80	19	5	1	1.73
I-57 NB	I-70 to I-74	12	5	2	1.73
I-74 WB	I-80 to US 34	3	1	1	1.72
I-74 WB	IN State Line to I-57	14	2	1	1.68
I-57 SB	I-74 to I-70	12	5	2	1.66

Source: Lakeside Engineers, March/April 2018.

[1] Hundred Million Vehicle Miles Traveled.

Table 2-11. Top Ranked Fatal/Injury Fatigue-Related Crash Rate

Route / Direction	Segment Limits	Number of Service Interchanges	Number of ASLs	Number of Rest Areas	Fatal/Injury Fatigue-Related Crash Rate (Crashes/HMVMT [1])
I-172 NB	I-72 to US 24	4	0	0	1.39
I-280/74 EB	I-280/74 Split to I-80	1	0	0	0.77
I-280/74 WB	I-80 to I-280/74 Split	0	0	0	0.77
I-55/74 NB	I-55/74 Split to I-55/74 Split	1	1	0	0.74
I-74 WB	US 34 to I-80	3	1	1	0.74
I-57 NB	I-70 to I-74	12	5	2	0.73
I-280 WB	I-280/74 Split to IA State Line	2	0	0	0.69
I-55 SB	I-55/74 Split to I-155	5	1	1	0.67
I-74 WB	I-474 to US 34	7	1	1	0.63
I-90 WB	IL-47 to I-39/90 Split	4	3	0	0.61
I-57 SB	I-74 to I-70	12	5	2	0.53
I-57 SB	I-70 to I-64	8	1	1	0.52
I-70 EB	I-57 to IN State Line	11	6	1	0.52

Source: Lakeside Engineers, March/April 2018.

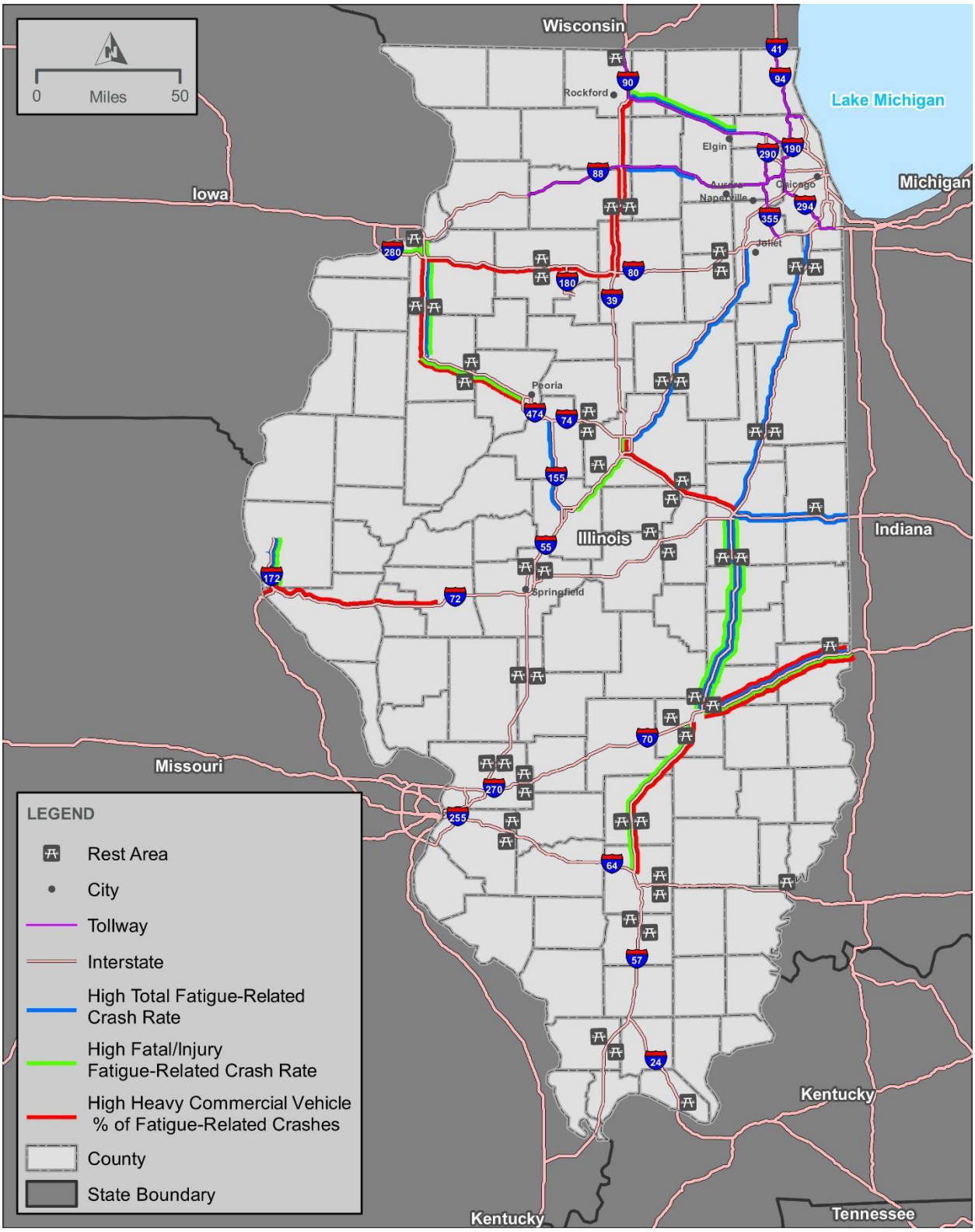
[1] Hundred Million Vehicle Miles Traveled.

Table 2-12. Top Ranked HCV Percentage of Fatigue-Related Crashes

Route / Direction	Segment Limits	Number of Service Interchanges	Number of ASLs	Number of Rest Areas	Percentage of Fatigue-Related Crashes Involving HCV
I-72 WB	US 67 to MO State Line	8	1	0	100%
I-70 EB	I-57 to IN State Line	11	6	1	67%
I-57 NB	I-64 to I-70	8	1	1	60%
I-74 WB	I-474 to US 34	7	1	1	56%
I-80 EB	I-74 to I-39	11	4	1	55%
I-39 SB	I-39/90 Split to I-88	7	3	0	50%
I-39 NB	I-80 to I-88	6	2	1	50%
I-39 SB	I-88 to I-80	6	2	1	50%
I-74 EB	I-80 to US 34	3	1	1	50%
I-55/74 NB	I-55/74 Split to I-55/74 Split	1	1	0	50%
I-74 WB	I-57 to I-55/74 Split	9	1	1	50%
I-70 WB	IN State Line to I-57	11	6	1	48%

Source: Lakeside Engineers, March/April 2018.

Figure 2-8. Segments with High Rankings for Fatigue-Related Crashes



Source: Lakeside Engineers, March/April 2018.

2.5 Rest Area User Survey

A user survey was completed for Illinois rest areas in October 2017 to gather feedback from travelers regarding their use/preference for rest areas and satisfaction with Illinois rest areas. A total of 6,958 surveys were received (33 by mail, 6,458 online and 467 in-person). The number of responses by rest area location and the sites where in-person surveys were completed are provided in **Table 2-13** and are shown graphically in **Figure 2-9**.

Details of the user survey can be found in the *Illinois DOT Statewide Rest Area Study Survey Results* (March 2018). A summary of user survey responses is provided below:

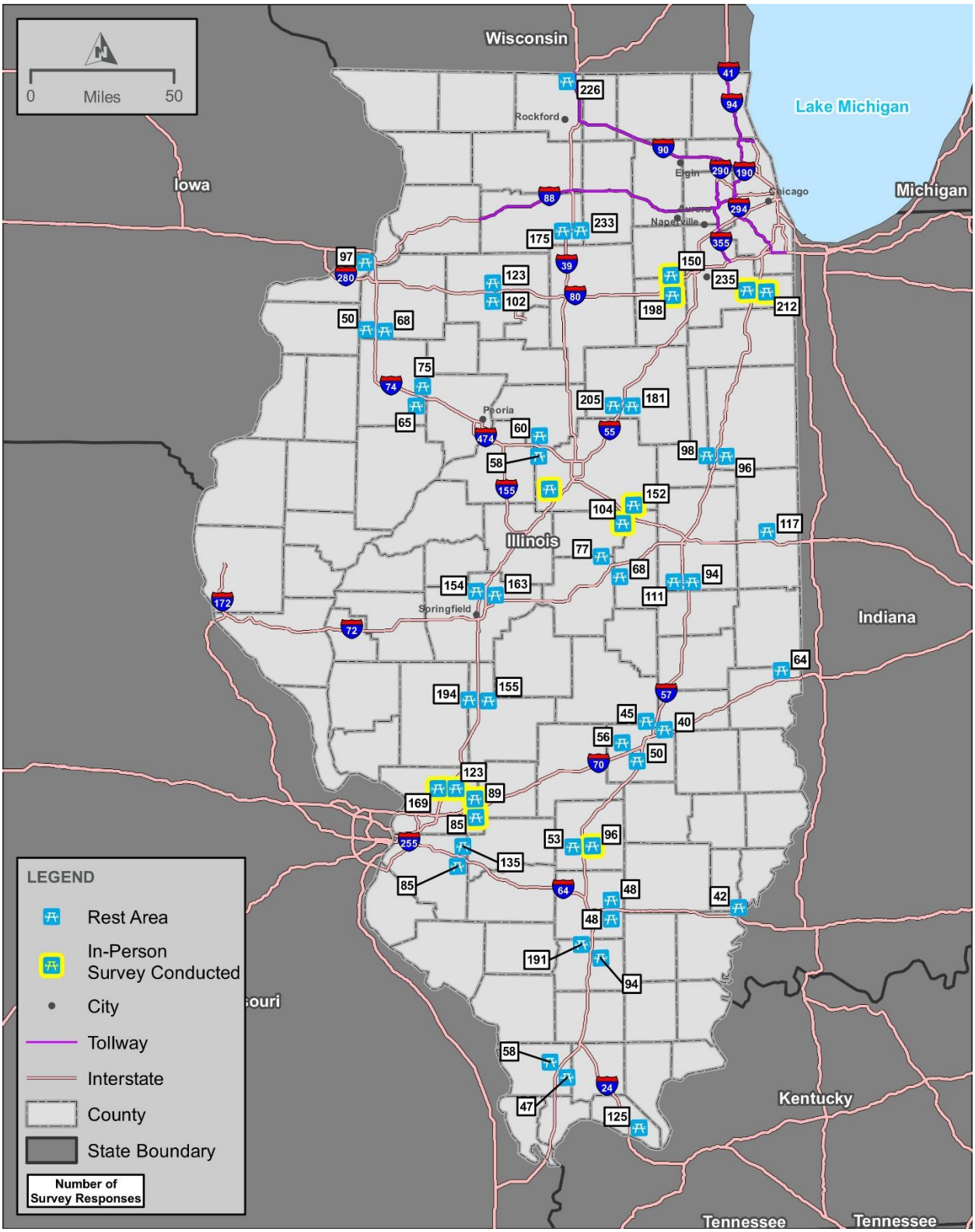
- The majority of responders primarily stop at rest areas to use the restroom (88%), with stretching/walking their secondary reason for stopping (33%).
- Weather, road and traffic condition information was very important to respondents (58%). Other important services acknowledged by respondents include: vending machines (49%) and family assisted restrooms with diaper changing stations (48%).
- Playground equipment and free Wi-Fi were considered not very important by 57% and 45% of respondents, respectively.
- 66% of respondents prefer using rest areas to commercial facilities.
- 67% of respondents prefer rest areas to be spaced less than 60 minutes of driving away from other rest areas or commercial facilities.
- 91% of respondents considered accessibility from vehicles to the facility “good”, “very good” or “excellent”, with only 2% of respondents considering accessibility from vehicles to the facility poor. The top locations identified as having poor accessibility from vehicles to the facility were Rend Lake NB (I-57, mile post 74), Fort Massac (I-24, mile post 37) and RailSplitter SB (I-55, mile post 104).
- 77% of respondents felt that safety and security at the rest area was “good”, “very good” or “excellent”.
- 68% of respondents felt that Illinois rest areas were “good”, “very good” or “excellent” when compared to rest areas in other states.
- 80% of respondents’ overall satisfaction with the rest area was either “satisfied” or “very satisfied”.

Table 2-13. Rest Area Survey Locations and Number of Responses

Rest Area Name	Route / Direction	Mile Post	In-Person Survey Conducted	Number of Survey Responses
Fort Massac	I-24 EB/WB	37		125
Willow Creek NB	I-39 NB	85		233
Willow Creek SB	I-39 SB	85		175
Homestead NB	I-55 NB	28	Yes	123
Homestead SB	I-55 SB	28	Yes	169
Coalfield NB	I-55 NB	65		155
Coalfield SB	I-55 SB	65		194
RailSplitter NB	I-55 NB	102		163
RailSplitter SB	I-55 SB	104		154
Funks Grove	I-55 NB/SB	149	Yes	352
Limestone NB	I-55 NB	194		181
Limestone SB	I-55 SB	194		205
Trail of Tears NB	I-57 NB	32		47
Trail of Tears SB	I-57 SB	32		58
Rend Lake NB	I-57 NB	74		94
Rend Lake SB	I-57 SB	79		191
Post Oak NB	I-57 NB	114	Yes	96
Post Oak SB	I-57 SB	114		53
Green Creek NB	I-57 NB	167		40
Green Creek SB	I-57 SB	167		45
Illini Prairie NB	I-57 NB	222		94
Illini Prairie SB	I-57 SB	222		111
Main Line Station NB	I-57 NB	269		96
Main Line Station SB	I-57 SB	269		98
Prairie View NB	I-57 NB	333	Yes	212
Prairie View SB	I-57 SB	333	Yes	235
Gateway EB	I-64 EB	25		85
Gateway WB	I-64 WB	25		135
Goshen Road EB	I-64 EB	83		48
Goshen Road WB	I-64 WB	85		48
Skeeter WB	I-64 WB	130		42
Silver Lake EB	I-70 EB	26	Yes	85
Silver Lake WB	I-70 WB	27	Yes	89
National Trail EB	I-70 EB	86		50
National Trail WB	I-70 WB	86		56
Cumberland Road WB	I-70 WB	149		64
Pride of the Prairie EB	I-72 EB	152		68
Pride of the Prairie WB	I-72 WB	152		77
KrisdalaBaka EB	I-74 EB	28		50
KrisdalaBaka WB	I-74 WB	28		68
Spoon River EB	I-74 EB	62		65
Spoon River WB	I-74 WB	62		75
Mackinaw Dells EB	I-74 EB	114		58
Mackinaw Dells WB	I-74 WB	114		60
Farm Land EB	I-74 EB	156	Yes	104
Farm Land WB	I-74 WB	156	Yes	152
Salt Kettle WB	I-74 WB	208		117
Mississippi Rapids EB	I-80 EB	1		97
Great Sauk Trail EB	I-80 EB	51		102
Great Sauk Trail WB	I-80 WB	51		123
Three Rivers EB	I-80 EB	117	Yes	198
Three Rivers WB	I-80 WB	118	Yes	150
Turtle Creek SB	I-90 SB	1		226

Source: Illinois DOT, October 2017 – December 2017.

Figure 2-9. Rest Area Survey Locations and Number of Responses



Source: Illinois DOT, October 2017 – December 2017.

3 Rest Area System Needs

A review and evaluation of the existing system was performed to identify needs to the Illinois DOT rest area system. Needs were broken into the following categories:

- Rest area service needs
- Aging rest area infrastructure needs
- Rest area spacing needs
- Truck parking needs

The following sections summarize the needs for each of these items based on review and evaluation of the existing system.

3.1 Rest Area Service Needs

As presented in the Existing System Chapter, all Illinois DOT rest areas provide the most basic services of restrooms (including handicap accessible stalls), parking, drinking water, traveler information and picnic areas. Most rest areas also provide payphones and TTY stations (teletypewriter to send and receive typed messages for the hearing impaired), vending machines, weather information, playground equipment and pet areas. A review of services missing at Illinois DOT rest areas and services most valued by travelers was used to determine rest area service needs.

User survey responses indicate that weather/traveler information and family assist restrooms are among the more important services to travelers. There are three locations that do not currently provide weather information and 43 locations that do not currently provide family assist restrooms; however, five locations are having family assist restrooms added in 2018. The comparison of Illinois DOT rest areas to adjacent states' rest area systems found that the percentage of rest areas in Illinois with family assist restrooms (28%) is below that in adjacent states. Conversely, the percentage of rest areas in Illinois that provide weather information (94%) is above that provided in adjacent states. The locations currently without weather information and family assist restrooms are listed in **Table 3-1**.

Weather information and family assist restrooms are important services to travelers. Weather information is not provided at three Illinois DOT rest areas, and family assist restrooms are not provided (or being constructed) at 38 rest areas.

Another service that is not provided at many rest areas is payphones and TTY stations. Currently, 19 Illinois rest areas do not provide payphones and TTY stations, listed in **Table 3-2**. The broad adoption of cellular phones and wide coverage of cellular service along Interstate routes has significantly reduced the use and need for payphones and TTY stations. The Illinois DOT Bureau of Design and Environment (BDE) Manual states the following regarding payphones at rest areas, "Provide a minimum of one telephone in the comfort station lobby for public use, one of which meets accessibility requirements." Additionally, the US Department of Justice 2010 ADA Standards for Accessible Design

states, “Where at least one public pay telephone is provided at a public rest stop, emergency roadside stop, or service plaza, at least one public TTY shall be provided.” Based on the current State and Federal policies, a payphone and TTY shall be provided at each rest area. The percentage of rest areas in Illinois that provide payphones and TTY (64%) is below the percentage of rest areas with TTY in adjacent states. However, it should be noted that some states have begun removing payphones and TTY at rest areas because they are seldom used.

Table 3-1. Rest Areas without Weather Information and Family Assist Restrooms

Route / Direction	Mile Post	Rest Area
Rest Areas without Weather Information		
I-55 NB	102	RailSplitter NB
I-55 SB	104	RailSplitter SB
I-64 WB	130	Skeeter WB
Rest Areas without Family Assist Restrooms		
I-24	37	Fort Massac
I-55 NB	65	Coalfield NB
I-55 SB	65	Coalfield SB
I-55 NB	102	RailSplitter NB
I-55 SB	104	RailSplitter SB
I-55 NB	194	Limestone NB
I-55 SB	194	Limestone SB
I-57 NB	32	Trail of Tears NB
I-57 SB	32	Trail of Tears SB
c	74	Rend Lake NB
I-57 SB	79	Rend Lake SB
I-57 NB	114	Post Oak NB
I-57 SB	114	Post Oak SB
I-57 NB	167	Green Creek NB
I-57 SB	167	Green Creek SB
I-57 NB	222	Illini Prairie NB [1]
I-57 SB	222	Illini Prairie SB [1]
I-57 NB	269	Main Line Station NB
I-57 SB	269	Main Line Station SB
I-57 NB	333	Prairie View NB
I-57 SB	333	Prairie View SB
I-64 EB	25	Gateway EB
I-64 WB	25	Gateway WB
I-64 WB	130	Skeeter WB
I-70 EB	26	Silver Lake EB
I-70 WB	27	Silver Lake WB
I-70 EB	86	National Trail EB
I-70 WB	86	National Trail WB
I-70 WB	149	Cumberland Road WB
I-72 EB	152	Pride of the Prairie EB [1]
I-72 WB	152	Pride of the Prairie WB [1]
I-74 EB	28	KrisdalaBaka EB
I-74 WB	30	KrisdalaBaka WB
I-74 EB	62	Spoon River EB
I-74 WB	62	Spoon River WB
I-74 EB	114	Mackinaw Dells EB
I-74 WB	114	Mackinaw Dells WB
I-74 WB	208	Salt Kettle WB [1]
I-80 EB	1	Mississippi Rapids EB
I-80 EB	51	Great Sauk Trail EB
I-80 WB	51	Great Sauk Trail WB
I-80 EB	117	Three Rivers EB
I-80 WB	118	Three Rivers WB

Source: Illinois DOT Districts, November 2017 – February 2018.

[1] Family assist restroom was not provided at the rest area at the time of data collection; however, this service is being added at this location in 2018.

Table 3-2. Rest Areas Lacking Payphones and TTY Stations

Route / Direction	Mile Post	Rest Area
I-55 NB	28	Homestead NB
I-55 SB	28	Homestead SB
I-55 NB	102	RailSplitter NB
I-55 SB	104	RailSplitter SB
I-57 NB	74	Rend Lake NB
I-57 SB	79	Rend Lake SB
I-57 NB	222	Illini Prairie NB
I-57 SB	222	Illini Prairie SB
I-57 NB	333	Prairie View NB
I-57 SB	333	Prairie View SB
I-64 EB	25	Gateway EB
I-64 WB	25	Gateway WB
I-70 EB	26	Silver Lake EB
I-70 WB	27	Silver Lake WB
I-70 WB	149	Cumberland Road WB
I-74 EB	62	Spoon River EB
I-74 WB	62	Spoon River WB
I-74 WB	208	Salt Kettle WB
I-90 SB	1	Turtle Creek SB

Source: Illinois DOT Districts, November 2017 – February 2018.

3.2 Aging Rest Area Infrastructure Needs

As presented in the Existing System Chapter, Illinois DOT rest areas range in age from 20 to 55 years old, with an average age of 35. A survey of other states finds that other DOTs consider their rest area useful service life to be anywhere between 30 and 50 years. Although many rest areas have had infrastructure improvements since their original construction, all Illinois DOT rest areas have a variety of infrastructure improvement and maintenance needs. A review of infrastructure needs was performed to quantify the future investment needed at each location. Rest area operations costs were also reviewed and correlated to rest area usage to determine a cost per vehicle.

Improvement costs were broken down into the following categories:

- Renovation – Cost to renovate the existing rest area building.
- Reconstruction – Cost to construct a new rest area building at the same site (with same size as current building). Note that reconstruction of the building to 4,000 square-feet, which meets more of Illinois DOT needs than what many sites currently provide, is estimated at $1,200,000.
- Future Physical Need – Cost to improve non-building site items, excluding sanitary improvements.
- Truck Parking Upgrades – Cost to upgrade parking lot and ramps, including additional parking lot.
- Accessibility Need – Cost to improve site to meet accessibility needs (does not include accessibility needs related to the building, as those are covered under renovation or reconstruction costs).
- Camera Utility Upgrade – Cost to add cameras to the site.

- Fiber Upgrade – Cost to provide fiber to the site.
- Sanitary – Cost to improve or rehabilitate sanitary detention system.
- Maintenance Garage – Cost to replace maintenance garage.
- Operations – Cost to operate the site, such as cleaning rest rooms and mowing.

The cost for each of these improvement needs varies by location. Additionally, each rest area has ongoing operations costs that vary by location. The total improvement need capital cost for each location was determined by adding improvement need costs together. For sites where the renovation cost is estimated to be greater than 75% of the estimated reconstruction cost of a 4,000 square-foot building, it was assumed that the building would be reconstructed. Improvement needs and operations costs for each location are provided in **Table 3-3** and **Table 3-4**. Total improvement need costs are also shown graphically in **Figure 3-1**.

Additionally, a comparison of the renovation cost to the reconstruction cost of the same size building was completed for each rest area to assess the impact of previously completed renovations, which extend the service life of the building. For example, for a rest area where the renovation cost is 20% of the reconstruction cost for the same size building, the building essentially has 80% of its service life remaining. To account for this extension of service life while considering the actual age of the building, an adjusted rest area age was determined by multiplying the rest area age by the percentage of renovation cost as reconstruction cost for the same size building. Adjusted rest area age, accounting for extension of service life based on previously completed renovations, is shown in **Table 3-3** and **Table 3-4**.

The statewide cost for rest area infrastructure needs is roughly $168 million (inclusive of design costs). The total improvement need capital plus design cost for most rest areas (36 out of 53 rest areas) is estimated to be between $1,000,000 and $4,000,000. Thirteen rest areas have total capital plus design costs above $4,000,000, and four of those rest areas, listed below, have costs above $5,000,000:

- Fort Massac NB/SB (I-24) – $5,293,639
- Coalfield NB (I-55) – $5,007,549
- Coalfield SB (I-55) – $5,005,709
- Three Rivers WB (I-80) – $5,201,089

For the four locations listed above, the estimated capital cost per vehicle at the Fort Massac location is near the lower range among all rest areas due to the high traffic volumes at this rest area. The Three Rivers WB location is near the middle of the range among all rest areas for the estimated capital cost per vehicle because of the moderately high traffic volumes at this rest area and the Coalfield location are near the higher range for estimated capital cost per vehicle due to the high costs and the mid-range for traffic volumes

There are six locations that were identified as having a high capital cost per vehicle and operations cost per vehicle:

- Mississippi Rapids EB (I-80)
  - Total needs cost = $2,303,261
  - Capital cost per vehicle = $1.68
  - Annual operations cost per vehicle = $3.20
- Spoon River EB (I-74)
  - Total needs cost = $3,809,386
  - Capital cost per vehicle = $0.66
  - Annual operations cost per vehicle = $0.93
- Spoon River WB (I-74)
  - Total needs cost = $3,647,270
  - Capital cost per vehicle = $0.63
  - Annual operations cost per vehicle = $0.93
- Skeeter WB (I-64)
  - Total needs cost = $3,077,806
  - Capital cost per vehicle = $0.50
  - Annual operations cost per vehicle = $1.06
- Pride of the Prairie EB (I-72)
  - Total needs cost = $2,491,688
  - Capital cost per vehicle = $0.55
  - Annual operations cost per vehicle = $1.00
- Pride of the Prairie WB (I-72)
  - Total needs cost = $2,491,688
  - Capital cost per vehicle = $0.55
  - Annual operations cost per vehicle = $1.00

The Mississippi Rapids rest area has the highest capital and operations cost per vehicle among all Illinois rest areas.

When reviewing the locations with high capital cost per vehicle and operations cost per vehicle, the Mississippi Rapids rest area is the worst investment based on usage. It should also be noted that the Mississippi Rapids rest area is located in close proximity to the Davenport rest area in Iowa (located 8 miles upstream). When making investment decisions for rest areas, locations with low cost per vehicle should be considered for investment priority. The following locations have the low annual operations cost per vehicle and capital cost per vehicle.

- Turtle Creek SB (I-90)
  - Total needs cost = $1,795,636
  - Capital cost per vehicle = $0.09
  - Annual operations cost per vehicle = $0.34
- Three Rivers EB (I-80)
  - Total needs cost = $3,126,275
  - Capital cost per vehicle = $0.20
  - Annual operations cost per vehicle = $0.27
- Fort Massac (I-24)
  - Total needs cost = $5,293,639
  - Capital cost per vehicle = $0.21
  - Annual operations cost per vehicle = $0.25
- Silver Lake WB (I-70)
  - Total needs cost = $622,877
  - Capital cost per vehicle = $0.06
  - Annual operations cost per vehicle = $0.40
- Silver Lake EB (I-70)
  - Total needs cost = $611,958
  - Capital cost per vehicle = $0.07
  - Annual operations cost per vehicle = $0.42

Table 3-3. Rest Area Improvement Needs and Operations Costs (Table 1 of 2)

Rest Area Name	Route / Direction	Mile Post	IDOT District	Year Built	Improvement Needs (Cost)									Annual Operations Cost	Annual Operations Cost per Vehicle	Adjusted Age [7]
					Renovation Cost	Reconstruction Cost [1]	Future Physical Need	Truck Parking Upgrades [2]	Misc. Cost [3]	Total Capital Cost [4]	Design Cost [5]	Total Capital + Design Cost	Capital Cost per Vehicle [6]			
Fort Massac	I-24 EB/WB	37	9	1982	$862,204	$772,200	$805,210	$2,500,000	$435,750	$1,938,160	$690,475	$5,293,639	$0.21	$214,805	$0.25	36
Willow Creek NB	I-39 NB	85	2	1992	$871,322	$1,155,600	$132,228	$1,500,000	$916,035	$1,777,560	$512,938	$3,932,523	$0.43	$150,793	$0.50	20
Willow Creek SB	I-39 SB	85	2	1992	$1,347,700	$1,787,400	$132,228	$1,500,000	$914,435	$2,215,693	$561,999	$4,308,662	$0.50	$150,793	$0.52	20
Homestead NB	I-55 NB	28	8	1998	$976,502	$1,117,800	$39,130	$1,500,000	$524,520	$1,606,450	$489,548	$3,753,198	$0.31	$180,824	$0.45	17
Homestead SB	I-55 SB	28	8	1998	$918,376	$1,117,800	$39,130	$1,500,000	$511,020	$1,592,950	$487,523	$3,737,673	$0.31	$180,824	$0.45	16
Coalfield NB	I-55 NB	65	6	1985	$385,493	$712,800	$288,528	$3,000,000	$680,370	$1,249,717	$653,159	$5,007,549	$0.63	$138,126	$0.52	18
Coalfield SB	I-55 SB	65	6	1985	$385,493	$712,800	$288,528	$3,000,000	$678,770	$1,248,117	$652,919	$5,005,709	$0.54	$138,126	$0.45	18
RailSplitter NB	I-55 NB	102	6	1963	$645,337	$504,900	$308,850	$2,500,000	$393,555	$1,130,285	$577,161	$4,424,903	$0.35	$117,801	$0.28	55
RailSplitter SB	I-55 SB	104	6	1963	$645,337	$504,900	$308,850	$2,500,000	$393,555	$1,130,285	$577,161	$4,424,903	$0.35	$117,801	$0.28	55
Funks Grove NB / SB	I-55 NB	149	5	1985	$254,761	$1,139,400	$79,590	$0	$175,720	$415,491	$76,511	$586,582	$0.06	$304,120	$0.48	7
Limestone NB	I-55 NB	194	3	1988	$532,480	$572,400	$188,600	$1,500,000	$1,370,677	$2,046,373	$538,764	$4,130,521	$0.52	$160,134	$0.61	28
Limestone SB	I-55 SB	194	3	1988	$532,480	$572,400	$188,600	$1,500,000	$1,379,677	$2,055,373	$540,114	$4,140,871	$0.44	$160,134	$0.51	28
Trail of Tears NB	I-57 NB	32	9	1971	$599,587	$707,400	$188,165	$0	$914,925	$1,735,490	$255,402	$1,958,079	$0.34	$138,565	$0.72	40
Trail of Tears SB	I-57 SB	32	9	1971	$655,996	$793,800	$188,165	$0	$923,125	$1,830,090	$265,093	$2,032,379	$0.35	$138,565	$0.72	39
Rend Lake NB	I-57 NB	74	9	1985	$445,770	$685,800	$353,870	$0	$735,550	$1,425,900	$230,279	$1,765,469	$0.16	$210,200	$0.57	21
Rend Lake SB	I-57 SB	79	9	1985	$445,770	$685,800	$353,870	$1,500,000	$736,350	$1,426,700	$455,399	$3,491,389	$0.32	$210,200	$0.57	21
Post Oak NB	I-57 NB	114	8	1985	$163,744	$642,600	$23,529	$2,500,000	$1,191,910	$1,291,569	$581,877	$4,461,060	$0.50	$148,920	$0.50	8
Post Oak SB	I-57 SB	114	8	1985	$126,973	$642,600	$23,529	$2,500,000	$1,188,510	$1,254,254	$575,852	$4,414,864	$0.49	$148,920	$0.50	7
Green Creek NB	I-57 NB	167	7	1978	$193,752	$621,000	$98,920	$2,000,000	$144,750	$347,518	$365,613	$2,803,035	$0.41	$168,541	$0.74	12
Green Creek SB	I-57 SB	167	7	1978	$193,752	$621,000	$98,920	$2,000,000	$146,350	$349,118	$365,853	$2,804,875	$0.41	$168,541	$0.74	12
Illini Prairie NB	I-57 NB	222	5	1968	$536,787	$729,000	$134,835	$2,000,000	$152,620	$707,932	$423,636	$3,247,878	$0.47	$227,422	$0.99	37
Illini Prairie SB	I-57 SB	222	5	1968	$536,787	$729,000	$134,835	$2,000,000	$152,620	$707,932	$423,636	$3,247,878	$0.39	$227,422	$0.82	37
Main Line Station NB	I-57 NB	269	3	1975	$390,208	$702,000	$33,760	$2,000,000	$306,328	$612,604	$409,544	$3,139,840	$0.41	$168,355	$0.66	24
Main Line Station SB	I-57 SB	269	3	1975	$390,208	$702,000	$33,760	$2,000,000	$142,060	$460,972	$384,904	$2,950,932	$0.39	$168,355	$0.66	24
Prairie View NB	I-57 NB	333	1	1970	$652,579	$896,400	$49,340	$2,000,000	$579,679	$1,123,054	$492,240	$3,773,838	$0.31	$124,736	$0.31	35
Prairie View SB	I-57 SB	333	1	1970	$652,579	$896,400	$49,340	$2,000,000	$145,380	$722,101	$427,095	$3,274,394	$0.27	$124,736	$0.31	35

Source: Hurst-Roche, August 2018.

1 Cost to reconstruct a rest area building with the same size as the current building. Note that the cost to reconstruct a new building at 4,000 square feet is roughly $1,200,000.

2 Truck Parking Upgrades split into the following categories: $1,500,000 = Onsite upgrades with minor ramp renovations; $2,000,000 = Additional parking lot, tree removal and ramp renovations; $2,500,000 = Additional parking lot, excessive tree removal, possibly acquire adjacent land and reconfigure/renovate ramps; $3,000,000 = Additional parking lot, excessive tree removal, reconfigure/renovate ramps and other extensive Interstate ramp improvements.

3 Misc. Cost includes improvements for accessibility, cameras, fiber, sanitary and maintenance garages.

4 Total Capital Cost includes Future Physical Need, Misc. Cost (accessibility + cameras + fiber + sanitary + maintenance garages), and either Renovation or Reconstruction (reconstruction of the rest area was assumed if the renovation cost is estimated to be above 75% of the reconstruction cost for a 4,000 square-foot building).

5 Design Cost set at 15% of Total Capital Cost.

6 Capital Cost per Vehicle is based on Capital + Design Cost, a 30 year life of capital improvements and no growth in rest area traffic volumes.

7 Adjusted Age = rest area age multiplied by percentage of reconstruction cost (existing size) as needed renovation cost (based on current year of 2018).

Table 3-4. Rest Area Improvement Needs and Operations Costs (Table 2 of 2)

Rest Area Name	Route / Direction	Mile Post	IDOT District	Year Built	Improvement Needs (Cost)									Annual Operations Cost	Annual Operations Cost per Vehicle	Adjusted Age [7]
					Renovation Cost	Reconstruction Cost [1]	Future Physical Need	Truck Parking Upgrades [2]	Misc. Cost [3]	Total Capital Cost [4]	Design Cost [5]	Total Capital + Design Cost	Capital Cost per Vehicle [6]			
Gateway EB	I-64 EB	25	8	1991	$136,469	$648,000	$19,875	$2,000,000	$513,825	$2,670,169	$400,525	$3,070,694	$0.25	$142,144	$0.34	6
Gateway WB	I-64 WB	25	8	1991	$128,045	$648,000	$19,875	$2,000,000	$513,825	$2,661,745	$399,262	$3,061,007	$0.25	$142,144	$0.34	5
Goshen Road EB	I-64 EB	83	9	1991	$621,972	$648,000	$89,645	$2,500,000	$315,200	$3,526,817	$529,023	$4,055,840	$0.63	$133,329	$0.62	26
Goshen Road WB	I-64 WB	85	9	1991	$621,972	$648,000	$89,645	$2,500,000	$315,200	$3,526,817	$529,023	$4,055,840	$0.64	$133,329	$0.63	26
Skeeter WB	I-64 WB	130	9	1981	$328,713	$448,200	$487,440	$1,500,000	$360,200	$2,676,353	$401,453	$3,077,806	$0.50	$219,466	$1.06	27
Silver Lake EB	I-70 EB	26	8	1998	$350,980	$621,000	$45,420	$0	$151,738	$548,138	$82,221	$630,358	$0.07	$131,740	$0.42	11
Silver Lake WB	I-70 WB	27	8	1998	$344,474	$550,800	$45,420	$0	$151,738	$541,632	$81,245	$622,877	$0.06	$131,740	$0.40	13
National Trail EB	I-70 EB	86	7	1989	$506,151	$545,400	$246,450	$2,000,000	$156,763	$2,909,365	$436,405	$3,345,769	$0.36	$200,235	$0.65	27
National Trail WB	I-70 WB	86	7	1989	$506,151	$545,400	$246,450	$2,000,000	$146,963	$2,899,565	$434,935	$3,334,499	$0.36	$200,235	$0.65	27
Cumberland Road WB	I-70 WB	149	7	1975	$488,900	$675,000	$112,400	$0	$449,750	$1,051,050	$157,658	$1,208,708	$0.12	$236,133	$0.69	31
Pride of the Prairie EB	I-72 EB	152	7	1998	$0	$0	$20,225	$2,000,000	$146,460	$2,166,685	$325,003	$2,491,688	$0.55	$152,264	$1.00	0
Pride of the Prairie WB	I-72 WB	152	7	1998	$0	$0	$20,225	$2,000,000	$146,460	$2,166,685	$325,003	$2,491,688	$0.55	$152,264	$1.00	0
KrisdalaBaka EB	I-74 EB	28	2	1987	$229,133	$550,800	$269,333	$2,000,000	$156,025	$2,654,490	$398,174	$3,052,664	$0.50	$150,249	$0.74	13
KrisdalaBaka WB	I-74 WB	28	2	1987	$229,133	$550,800	$269,333	$2,000,000	$156,025	$2,654,490	$398,174	$3,052,664	$0.50	$150,249	$0.74	13
Spoon River EB	I-74 EB	62	4	1974	$794,489	$707,400	$250,905	$1,500,000	$767,115	$3,312,509	$496,876	$3,809,386	$0.66	$179,260	$0.93	44
Spoon River WB	I-74 WB	62	4	1974	$664,554	$594,000	$250,905	$1,500,000	$756,080	$3,171,539	$475,731	$3,647,270	$0.63	$179,260	$0.93	44
Mackinaw Dells EB	I-74 EB	114	4	1972	$423,814	$583,200	$18,420	$0	$370,282	$812,516	$121,877	$934,393	$0.09	$147,918	$0.44	33
Mackinaw Dells WB	I-74 WB	114	4	1972	$409,882	$583,200	$18,420	$1,500,000	$370,282	$2,298,584	$344,788	$2,643,371	$0.26	$147,918	$0.44	32
Farm Land EB	I-74 EB	156	5	1994	$784,555	$1,371,600	$25,980	$1,500,000	$147,200	$2,457,735	$368,660	$2,826,395	$0.31	$218,224	$0.71	14
Farm Land WB	I-74 WB	156	5	1994	$784,555	$1,371,600	$25,980	$1,500,000	$147,200	$2,457,735	$368,660	$2,826,395	$0.38	$218,224	$0.89	14
Salt Kettle WB	I-74 WB	208	4	1986	$144,565	$631,800	$135,080	$1,500,000	$611,620	$2,391,265	$358,690	$2,749,955	$0.27	$267,301	$0.79	7
Mississippi Rapids EB	I-80 EB	1	2	1980	$232,426	$502,200	$858,380	$0	$912,030	$2,002,836	$300,425	$2,303,261	$1.68	$145,952	$3.20	18
Great Sauk Trail EB	I-80 EB	51	3	1972	$113,496	$507,600	$85,420	$2,000,000	$371,529	$2,570,445	$385,567	$2,956,011	$0.36	$163,187	$0.59	10
Great Sauk Trail WB	I-80 WB	51	3	1972	$113,496	$507,600	$85,420	$2,000,000	$371,529	$2,570,445	$385,567	$2,956,011	$0.37	$163,187	$0.62	10
Three Rivers EB	I-80 EB	117	3	1972	$184,546	$572,400	$64,920	$0	$3,109,034	$3,358,500	$503,775	$3,862,275	$0.25	$139,270	$0.27	15
Three Rivers WB	I-80 WB	118	3	1972	$184,546	$572,400	$64,920	$2,000,000	$2,273,220	$4,522,686	$678,403	$5,201,089	$0.33	$139,270	$0.27	15
Turtle Creek SB	I-90 SB	1	2	1985	$217,395	$853,200	$28,228	$0	$1,315,800	$1,561,423	$234,213	$1,795,636	$0.09	$224,177	$0.34	8

Source: Hurst-Roche, August 2018.

1 Cost to reconstruct a rest area building with the same size as the current building. Note that the cost to reconstruct a new building at 4,000 square feet is roughly $1,200,000.

2 Truck Parking Upgrades split into the following categories: $1,500,000 = Onsite upgrades with minor ramp renovations; $2,000,000 = Additional parking lot, tree removal and ramp renovations; $2,500,000 = Additional parking lot, excessive tree removal, possibly acquire adjacent land and reconfigure/renovate ramps; $3,000,000 = Additional parking lot, excessive tree removal, reconfigure/renovate ramps and other extensive Interstate ramp improvements.

3 Misc. Cost includes improvements for accessibility, cameras, fiber, sanitary and maintenance garages.

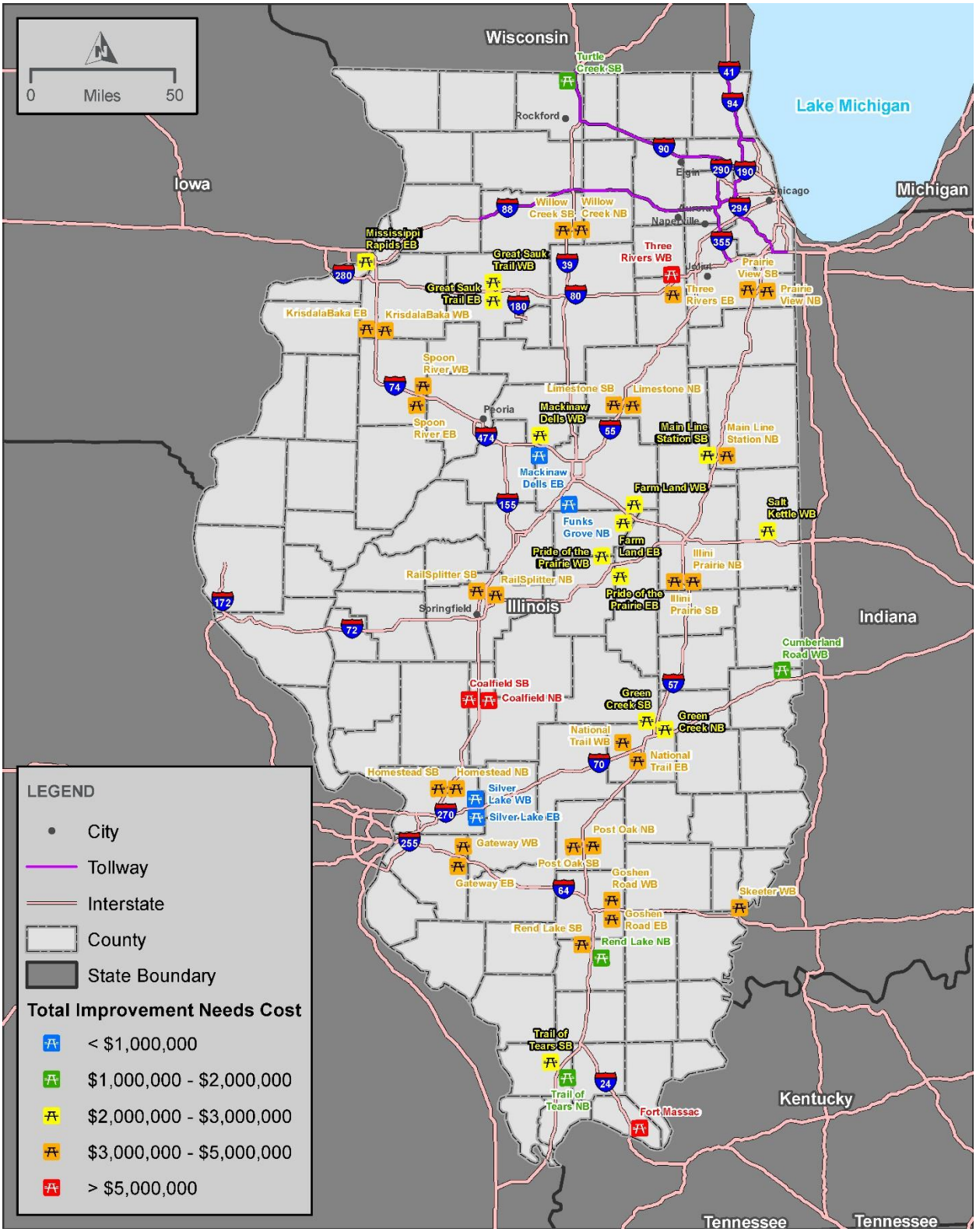
4 Total Capital Cost includes Future Physical Need, Misc. Cost (accessibility + cameras + fiber + sanitary + maintenance garages), and either Renovation or Reconstruction (reconstruction of the rest area was assumed if the renovation cost is estimated to be above 75% of the reconstruction cost for a 4,000 square-foot building).

5 Design Cost set at 15% of Total Capital Cost.

6 Capital Cost per Vehicle is based on Capital + Design Cost, a 30 year life of capital improvements and no growth in rest area traffic volumes.

7 Adjusted Age = rest area age multiplied by percentage of reconstruction cost (existing size) as needed renovation cost (based on current year of 2018).

Figure 3-1. Rest Area Total Improvement Needs Costs



Source: Hurst-Roche, July 2018.

3.3 Rest Area Spacing Needs

As presented in the Existing System Chapter, the order of magnitude for rest area spacing varies across Illinois, with the average distance between rest areas at roughly 52 miles. Based on AASHTO guidance for rest area spacing at roughly one hour of driving apart and posted speed of rural Interstate in Illinois at 70 miles per hour, rest areas should be spaced less than roughly 70 miles to meet AASHTO guidance. A review of rest areas with spacing greater than 70 miles was reviewed to identify segments without adequate rest area spacing.

Most rest areas throughout Illinois are spaced within 70 miles of the nearest upstream/downstream rest area. A list of 23 segments with excessive rest area spacing of more than 70 miles is provided in **Table 3-5**. These segments are also shown graphically in **Figure 3-2**. Note that many of the segments include rest areas on different routes, as many travelers change from one route to another at Interstate-to-Interstate junctions.

Of the 23 segments with excessive spacing between rest areas, 18 segments include spacing to a rest area in a neighboring state. These are the segments listed in **Table 3-5** along I-55, I-57, I-64, I-70 and I-72. Of the 18 segments including rest areas in neighboring states, 17 segments include a rest area in Illinois within approximately 30 minutes of driving from the state line. The one segment that spans from Illinois into a neighboring state with the Illinois rest area located more than a half hour from the state line is the segment along I-72/I-74 from Pride of the Prairie EB to Spring Creek EB (in Indiana). This segment from Pride of the Prairie EB to Spring Creek EB is just over an hour of driving, at 74 miles long.

Five segments with excessive spacing between rest areas are located completely within Illinois. One of these segments, between Rend Lake SB (I-57) and Fort Massac (I-24), could be considered as being spaced approximately an hour apart since the spacing is 71 miles. The other four segments with excessive spacing in Illinois are along I-39, south of the Willow Creek rest areas to rest areas on I-55 and I-74 south of Bloomington, Illinois. The spacing from the Willow Creek rest areas to adjacent rest areas on I-55 and I-74 is 100 miles and 115 miles, respectively. Along these segments, between seven and nine ASLs were identified, spaced roughly 30 minutes or less. The presence and placement of ASLs along I-39, I-55 and I-74 on these segments may provide enough service opportunities to travelers to offset to the excessive spacing between rest areas. However, the user survey indicated that travelers prefer to use rest areas over commercial facilities, and additional rest area services should be considered along I-39 between the Willow Creek rest areas and Bloomington, Illinois.

The segment along I-39 between the Willow Creek rest areas and Bloomington, Illinois has excessive rest area spacing of over 100 miles. Additional rest area services should be considered for this segment.

Additionally, the segment of I-72 between the Missouri state line and I-55 near Springfield, Illinois is 98 miles and should be considered for addition of rest area services. A review of high percentage of fatigue-related crashes involving a heavy

commercial vehicle also supports a need for rest area services on this segment since 100% of westbound crashes involved a heavy commercial vehicle. It should be noted that there are three ASLs along this segment, with none reporting truck parking consistently full, and mainline ADT along this segment is lower than other rest area segments in Illinois. The segment length without a rest area along I-72 from the Missouri state line to nearest rest areas in Illinois is shown in **Table 3-6**. These segments are also shown in **Figure 3-2**.

Table 3-5. Excessive Rest Area Spacing

Route	From Rest Area	To Rest Area	Distance (Miles)
I-24	Rend Lake SB (I-57)	Fort Massac (I-24)	71
I-39	Funks Grove (I-55)	Willow Creek NB (I-39)	100
I-39	Farm Land WB (I-74)	Willow Creek NB (I-39)	115
I-39	Willow Creek SB (I-39)	Funks Grove (I-55)	100
I-39	Willow Creek SB (I-39)	Farm Land EB (I-74)	115
I-55	Wright City EB (I-70 MO)	Homestead NB (I-55)	73
I-55	St. Clair EB (I-44 MO)	Homestead NB (I-55)	84
I-55	Bloomsdale NB (I-55 MO)	Homestead NB (I-55)	78
I-55	Homestead SB (I-55)	Wright City WB (I-70 MO)	73
I-55	Homestead SB (I-55)	St. Clair WB (I-44 MO)	84
I-55	Homestead SB (I-55)	Fruitland SB (I-55 MO)	127
I-57	Hayti NB (I-55 MO)	Trail of Tears NB (I-57)	100
I-57	Trail of Tears SB (I-57)	Marston SB (I-55 MO)	78
I-64	Wright City EB (I-70 MO)	Gateway EB (I-64)	76
I-64	St. Clair EB (I-44 MO)	Gateway EB (I-64)	81
I-64	Gateway WB (I-64)	Wright City WB (I-70 MO)	76
I-64	Gateway WB (I-64)	St. Clair WB (I-44 MO)	81
I-70	Wright City EB (I-70 MO)	Silver Lake EB (I-70)	76
I-70	St. Clair EB (I-44 MO)	Silver Lake EB (I-70)	88
I-70	Silver Lake WB (I-70)	Wright City WB (I-70 MO)	76
I-70	Silver Lake WB (I-70)	St. Clair WB (I-44 MO)	88
I-70	Plainfield WB (I-70 IN)	Cumberland Road WB (I-70)	72
I-72	Pride of the Prairie EB (I-72)	Spring Creek EB (I-74 IN)	74

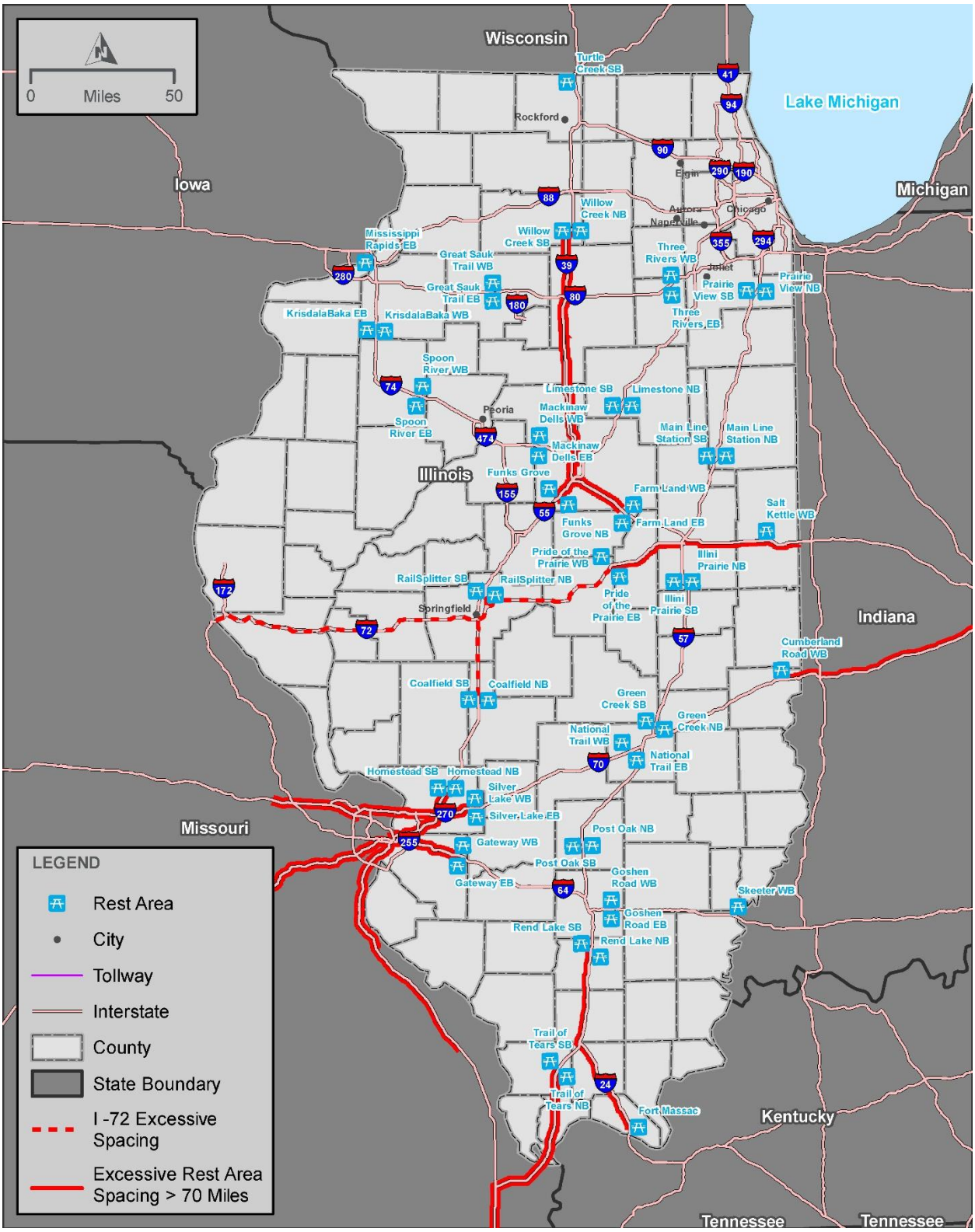
Source: HDR, May 2018.

Table 3-6. I-72 Spacing without a Rest Area

From	To	Distance (Miles)
Missouri State Line	RailSplitter (I-55)	108
Missouri State Line	Coalfield (I-55)	126
Missouri State Line	Pride of the Prairie (I-72)	152

Source: HDR, May 2018.

Figure 3-2. Excessive Rest Area Spacing



Source: HDR, May 2018.

3.4 Truck Parking Needs

As presented in the Existing System Chapter, many rest areas and ASLs experience truck parking at or over capacity during the overnight hours. A review of truck parking needs was performed to identify segments where additional truck parking is needed. This review was performed by identifying Interstate segments with the following:

- Rest areas with truck parking observed (or estimated) above capacity.
- ASLs noted as having truck parking consistently full.
- Segments ranking high for fatigue-related crashes.
- Calculated truck parking demand for the segment greater than the truck parking capacity provided by rest areas and ASLs on the segment.

For the truck parking needs assessment, Interstates were broken into segments using Interstate-to-Interstate junctions as endpoints. Truck parking demand for each segment was calculated using a demand equation from the FHWA *Study of Adequacy of Commercial Truck Parking Facilities Technical Report* (Report #FHWA-RD-01-158, March 2002), referred to hereinafter as the FHWA Truck Parking Study. The equation in the FHWA Truck Parking Study calculates truck parking demand by using information on the amount of trucks on a given segment of roadway and the expected percentage of truck stopping maneuvers occurring in the peak truck parking period (peak hour of parking overnight). Additionally, assumptions regarding a breakdown of the type of truck trips (short-haul versus long-haul), average parking duration and the percent of truck stopping maneuvers occurring in the peak truck parking period were obtained from a report developed by the Pennsylvania State Transportation Advisory Committee titled *Truck Parking in Pennsylvania* (December 2007). Detailed information on the calculation for truck parking demand is provided in the Appendix. The truck parking demand and capacity by segment is provided in **Table 3-7**. The truck parking demand-to-capacity ratio by segment is shown graphically in **Figure 3-3**.

Approximately 57% of Illinois Interstate (by length) has a truck parking demand-to-capacity ratio above 1.0 (over capacity), with approximately 20% having a demand-to-capacity ratio above 1.5. Most of the Interstate with a truck parking demand-to-capacity ratio above 1.5 is on I-57 south of I-74.

57% of Illinois Interstate has a truck parking demand greater than the provided capacity. Most of the Illinois Interstate with the highest demand-to-capacity ratio is along I-57 south of I-74.

Table 3-7. Interstate Truck Parking Demand and Capacity

Route	Segment Limits		ADT [1]	Truck % [1]	Length (Miles)	Peak Truck Parking Demand [2]	Truck Parking Capacity			Truck Parking Demand/Capacity
	From	To					Rest Area Truck Parking	ASL Truck Parking	Total	
I-24	I-57	Kentucky State Line	22,100	35%	38	172	18	0	18	9.54
I-39	I-55	I-80	18,700	33%	59	210	0	201	201	1.05
I-39	I-80	I-88	20,000	38%	38	170	84	97	181	0.94
I-39	I-88	I-90	28,500	42%	25	174	0	513	513	0.34
I-55	I-270	I-55/72 South Junction	32,700	27%	73	371	144	254	398	0.93
I-55	I-55/72 North Junction	I-155	33,500	30%	29	172	12	322	334	0.52
I-55	I-155	I-55/74 South Junction	23,400	34%	30	137	40	75	115	1.19
I-55	I-39	I-80	28,700	24%	86	344	65	487	552	0.62
I-55	I-80	I-355	108,600	13%	19	159	0	250	250	0.63
I-57	Missouri State Line	I-24	13,400	47%	44	161	40	0	40	4.02
I-57	I-24	I-57/64 South Junction	34,900	36%	48	348	68	187	255	1.36
I-57	I-57/64 North Junction	I-57/70 South Junction	20,300	43%	61	309	36	120	156	1.98
I-57	I-57/70 North Junction	I-72	22,000	31%	71	285	73	52	125	2.28
I-57	I-74	I-80	26,100	28%	108	465	91	720	811	0.57
I-64	I-255	I-57/67 North Junction	40,400	20%	66	304	53	232	285	1.07
I-64	I-57/64 South Junction	Indiana State Line	10,500	41%	52	131	61	65	126	1.04
I-70	I-55	I-57/64 South Junction	22,100	42%	77	413	121	164	285	1.45
I-70	I-57/70 North Junction	Indiana State Line	22,700	47%	57	354	39	162	201	1.76
I-72	I-172	I-55/72 South Junction	11,400	29%	93	180	0	145	145	1.24
I-72	I-55/72 North Junction	I-57	14,900	20%	78	137	33	83	116	1.18
I-74	I-80	I-74/474 North Junction	17,700	29%	73	217	54	182	236	0.92
I-74	I-155	I-55/74 North Junction	27,200	19%	26	78	43	38	81	0.96
I-74	I-55/74 South Junction	I-57	24,400	31%	45	197	84	112	196	1.01
I-74	I-57	Indiana State Line	35,300	22%	41	185	20	174	194	0.95
I-80	I-74	I-39	21,800	41%	68	351	86	422	508	0.69
I-80	I-39	I-55	42,200	30%	48	351	70	692	762	0.46
I-80	I-55	I-57	101,000	25%	25	364	0	0	0	10.00 [3]

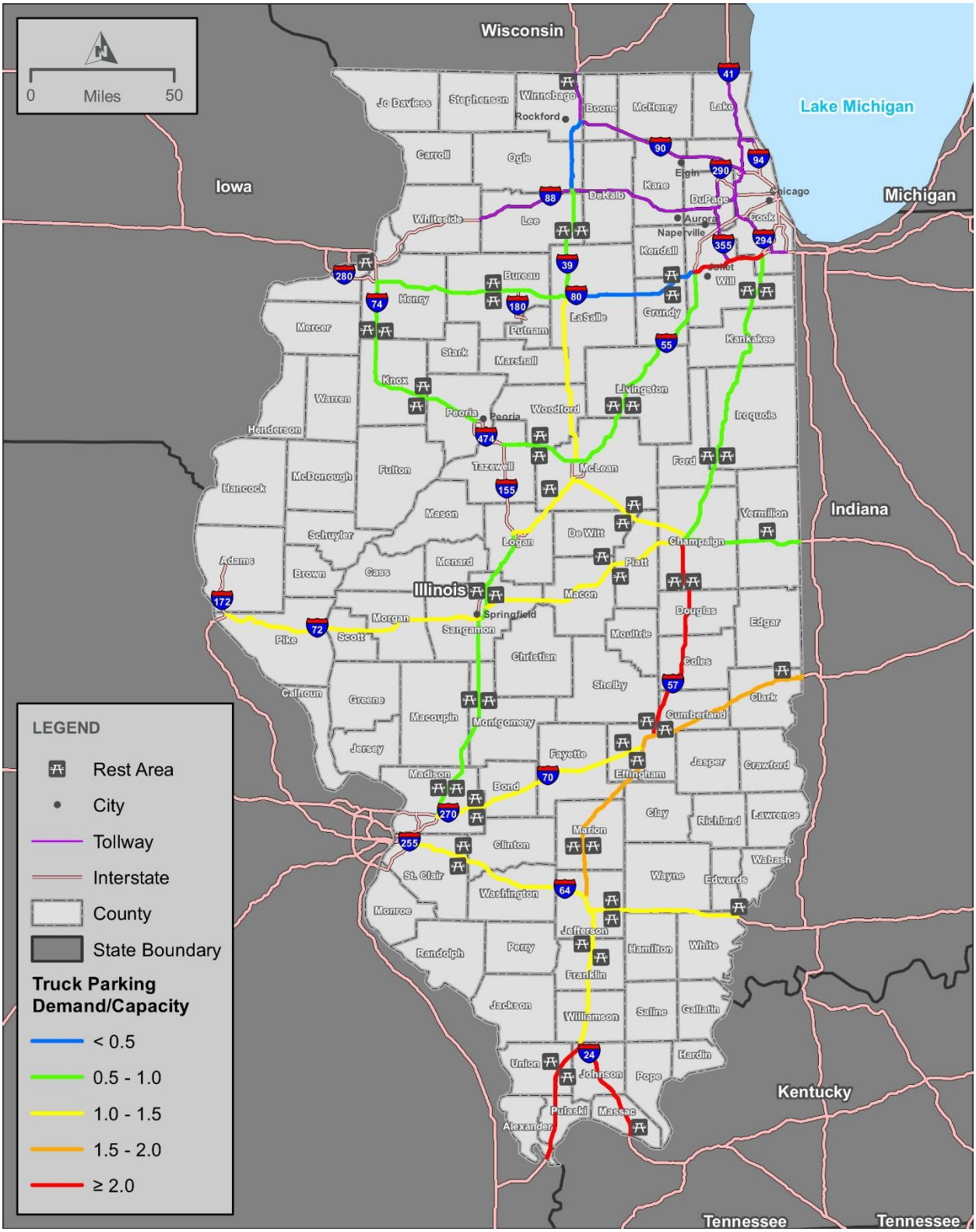
Source: HDR, May 2018.

[1] Average over the segment limits.

[2] Peak hour of parking overnight. Calculated using equation from the FHWA *Study of Adequacy of Commercial Truck Parking Facilities Technical Report* (Report #FHWA-RD-01-158, March 2002).

[3] Truck parking demand/capacity capped at 10.00; no truck parking capacity is provided for this segment via rest area and ASL.

Figure 3-3. Truck Parking Demand-to-Capacity Ratios



Source: HDR, May 2018.

A summary of truck parking along Interstate segments and those segments ranking high for fatigue-related crashes is provided in **Table 3-8**.

Based on the review of truck parking utilization at rest areas and ASLs, the truck parking demand-to-capacity evaluation and segments ranking high for fatigue-related crashes, the following Interstate segments are identified as those with the greatest need for additional truck parking:

- I-24 – I-57 to Kentucky State Line
- I-39 – I-80 to I-88
- I-55 – I-55/72 North Junction to I-55/74 South Junction
- I-57 – I-24 to I-57/64 South Junction
- I-57 – I-57/64 North Junction to I-57/70 South Junction
- I-57 – I-57/70 North Junction to I-72
- I-64 – I-255 to I-57/64 North Junction
- I-70 – I-55 to I-57/70 South Junction
- I-70 – I-57/70 North Junction to Indiana State Line
- I-74 – I-57 to Indiana State Line

These segments generally have rest areas and ASLs with truck parking at/over capacity and calculated truck parking demand greater than capacity. Many of these segments also rank high for at least one of the fatigue-related crash categories that were evaluated. These segments represent roughly one-third of evaluated Interstate, by length.

Table 3-8. Interstate Truck Parking plus Fatigue-Related Crash Summary

Route	Segment Limits		Length (Miles)	Rest Areas with Truck Parking Above 150% of Capacity [1]	ASLs with Truck Parking Consistently Full [2]	Calculated Truck Parking Demand/Capacity (For Locations Over Capacity)	High Ranking for Total Fatigue-Related Crashes	High Ranking for Fatal/Injury Fatigue-Related Crashes	High Ranking for Heavy Vehicle % of Fatigue-Related Crashes
	From	To							
I-24	I-57	Kentucky State Line	38	1 / 1	-	9.54			
I-39	I-55	I-80	59	-	2 / 3	1.05			
I-39	I-80	I-88	38	1 / 2	1 / 2				X
I-39	I-88	I-90	25	-	1 / 3				X
I-55	I-270	I-55/72 South Junction	73	1 / 4	2 / 5				
I-55	I-55/72 North Junction	I-155	29	2 / 2	2 / 4				
I-55	I-155	I-55/74 South Junction	30	1 / 2	0 / 1	1.19		X	
I-55	I-39	I-80	86	0 / 2	2 / 6		X		
I-55	I-80	I-355	19	-	0 / 1				
I-57	Missouri State Line	I-24	44	0 / 2	-	4.02			
I-57	I-24	I-57/64 South Junction	48	2 / 2	2 / 2	1.36			
I-57	I-57/64 North Junction	I-57/70 South Junction	61	2 / 2	1 / 1	1.98		X	X
I-57	I-57/70 North Junction	I-72	71	3 / 4	0 / 4	2.28	X	X	
I-57	I-74	I-80	108	0 / 4	5 / 9		X		
I-64	I-255	I-57/67 North Junction	66	1 / 2	2 / 4	1.07			
I-64	I-57/64 South Junction	Indiana State Line	52	0 / 3	1 / 1	1.04			
I-70	I-55	I-57/64 South Junction	77	1 / 4	2 / 2	1.45			
I-70	I-57/70 North Junction	Indiana State Line	57	0 / 1	2 / 2	1.76	X	X	X
I-72	I-172	I-55/72 South Junction	93	-	0 / 3	1.24			X
I-72	I-55/72 North Junction	I-57	78	0 / 2	1 / 2	1.18			
I-74	I-80	I-74/474 North Junction	73	0 / 4	0 / 3		X	X	X
I-74	I-155	I-55/74 North Junction	26	1 / 2	-				
I-74	I-55/74 South Junction	I-57	45	0 / 2	1 / 2	1.01			X
I-74	I-57	Indiana State Line	41	1 / 1	2 / 2		X		
I-80	I-74	I-39	68	0 / 2	3 / 4				X
I-80	I-39	I-55	48	0 / 2	5 / 6				
I-80	I-55	I-57	25	-	-	10.00			

Source: Hurst-Roche, HDR and Lakeside Engineers, 2017-2018.

[1] Nearly all Interstate segments contain at least one rest area with observed truck parking above capacity. Number of rest areas with observed truck parking above 150% of capacity out of number of rest areas along the segment.

[2] Number of ASLs noted as having truck parking consistently full overnight out of the total number of ASLs along the segment.

3.5 Rest Area System Needs Summary

Rest area system needs discussed in the previous sections are summarized below.

Rest Area Service Needs

Weather information and family assist restrooms are important services to travelers. Weather information is not provided at three Illinois DOT rest areas, and family assist restrooms are not provided (or being constructed) at 38 rest areas. These locations are shown earlier in this chapter in **Table 3-1**.

Aging Rest Area Infrastructure

The statewide cost for rest area infrastructure needs is roughly $169 million. Six locations were identified as having high capital cost per vehicle and operations cost per vehicle:

- Mississippi Rapids EB (I-80)
- Spoon River EB (I-74)
- Spoon River WB (I-74)
- Skeeter WB (I-64)
- Pride of the Prairie EB (I-72)
- Pride of the Prairie WB (I-72)

Of these locations, the Mississippi Rapids rest area is the worst investment based on usage, with a capital cost per vehicle estimated at $1.68 and annual operations cost per vehicle at $3.20. The Mississippi Rapids rest area is located in close proximity to the Davenport rest area in Iowa (located 8 miles upstream). When making investment decisions for rest areas, locations with low cost per vehicle, as identified in **Table 3-3** and **Table 3-4**, should be considered for investment priority. The following locations have the lowest combined operations cost per vehicle and capital cost per vehicle.

- Turtle Creek SB (I-90)
- Three Rivers EB (I-80)
- Fort Massac (I-24)
- Silver Lake WB (I-70)
- Silver Lake EB (I-70)

Rest Area Spacing Needs

Most segments with excessive spacing between rest areas (more than an hour of driving; greater than 70 miles) include a rest area outside of Illinois. The segment of I-39 between the Willow Creek rest areas and Bloomington, Illinois, has rest area spacing over 100 miles, and additional rest area services should be considered for this segment. Additionally, the segment of I-72 between the Missouri state line and I-55 near

Springfield, Illinois is 98 miles and should be considered for addition of rest area services.

Truck Parking Needs

Interstate segments in Illinois were identified for truck parking needs based on reviews of truck parking utilization at rest areas and ASLs, the truck parking demand-to-capacity evaluation and segments ranking high for fatigue-related crashes. The following ten Interstate segments in Illinois, representing roughly one-third of Illinois Interstate miles, were identified as those with the greatest need for additional truck parking:

- I-24 – I-57 to Kentucky State Line
- I-39 – I-80 to I-88
- I-55 – I-55/72 North Junction to I-55/74 South Junction
- I-57 – I-24 to I-57/64 South Junction
- I-57 – I-57/64 North Junction to I-57/70 South Junction
- I-57 – I-57/70 North Junction to I-72
- I-64 – I-255 to I-57/64 North Junction
- I-70 – I-55 to I-57/70 South Junction
- I-70 – I-57/70 North Junction to Indiana State Line
- I-74 – I-57 to Indiana State Line

These segments generally have rest areas and ASLs with truck parking at/over capacity and calculated truck parking demand greater than capacity. Many of these segments also rank high for at least one of the fatigue-related crash categories that were evaluated.