# CONGESTION MANAGEMENT PROCESS

Approved by the Transportation Policy Body on May 14, 2024

Administrative Adjustment 1: June 25, 2025

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## ACRONYMS

| | |
|---|---|
| **ACS** | American Community Survey |
| **CFR** | Code of Federal Regulations |
| **CMP** | Congestion Management Process |
| **FAST** | Fixing America's Surface Transportation Act |
| **FHWA** | Federal Highway Administration |
| **ISTEA** | Intermodal Surface Transportation Efficiency Act |
| **KDOT** | Kansas Department of Transportation |
| **LOTTR** | Level of Travel Time Reliability |
| **MPO** | Metropolitan Planning Organization |
| **MTP** | Metropolitan Transportation Plan |
| **NHS** | National Highway System |
| **NPMRDS** | National Performance Management Research Data Set |
| **PHED** | Peak Hour Excessive Delay |
| **SOV** | Single Occupancy Vehicle |
| **TDM** | Travel Demand Model |
| **TIP** | Transportation Improvement Program |
| **TMA** | Transportation Management Area |
| **TTTR** | Truck Travel Time Reliability |
| **V/C** | Volume to Capacity |
| **VMT** | Vehicle Miles Traveled |

## INTRODUCTION

The Wichita Area Metropolitan Planning Organization (WAMPO) plays a vital role in enhancing the quality of life for residents in the Wichita metropolitan area. As the region continues to experience growth in population, economic activities, and transportation demands, ensuring efficient and reliable transportation networks is paramount. Congestion on the area transportation network not only hampers economic development but also diminishes the overall quality of life for residents. Addressing congestion challenges requires a strategic and comprehensive approach. One portion of that approach is the utilization of a Congestion Management Process (CMP).

This document summarizes the Congestion Management Process tailored for WAMPO in support of the overall Metropolitan Transportation Plan (MTP). The CMP serves as a guiding framework designed to systematically identify, analyze, and manage congestion-related issues within the transportation system. By employing data-driven methodologies, innovative technologies, and community engagement, WAMPO aims to optimize the existing transportation infrastructure and develop sustainable solutions to alleviate congestion. Through continued collaboration with various stakeholders, including government agencies, local communities, businesses, and transportation experts, WAMPO endeavors to create a process that not only addresses immediate concerns but also lays the foundation for a resilient and efficient transportation network in the future.

The CMP emphasizes the importance of a holistic approach, considering various modes of transportation, emerging technologies, and the unique needs of different communities within the Wichita metropolitan area. This document represents just one piece of the larger commitment from WAMPO to proactively address congestion challenges, enhance transportation accessibility, and foster economic growth. By implementing the strategies outlined in this CMP to collect data, track performance, and utilize tools such as the travel demand model (TDM), WAMPO endeavors to create a seamless, reliable, and efficient transportation system that enriches the lives of residents, supports local businesses, and ensures the long-term prosperity of the Wichita metropolitan area.

*Vehicle Traffic Queues at K-96 and Rock Road*

## CMP BACKGROUND

Federal requirements state that metropolitan areas with more than 200,000 people must maintain a Congestion Management Process. These Transportation Management Areas (TMAs) use their CMP to make informed transportation planning decisions. These requirements were introduced by the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991. The Federal Highway Administration (FHWA) guidance[1] refers to a CMP as a "systematic and regionally accepted approach for managing congestion that provides accurate, up-to-date information on transportation system performance and assesses alternative strategies for congestion management that meet state and local needs." The CMP is intended to remain a living document and integrate into the area's metropolitan transportation planning process. The purpose is to identify congestion, match strategies for mitigation, monitor effectiveness of the mitigation, and steer funding towards strategies that prove effective. The CMP is intended to be another tool and "lens" that can support project selection related to congestion by providing a more informed decision-making process.

Summarized from FHWA 23 CFR Part 450 Sec. 322, a CMP should include:

- Methods to monitor and evaluate the performance of the multimodal transportation system, identify the underlying causes of recurring and non-recurring congestion, identify and evaluate alternative strategies, provide information supporting the implementation of actions, and evaluate the effectiveness of implemented actions.
- Definition of congestion management objectives and appropriate performance measures to assess the extent of congestion and support the evaluation of the effectiveness of congestion reduction and mobility enhancement strategies for the movement of people and goods.
- Establishment of a coordinated program for data collection and system performance monitoring to define the extent and duration of congestion, to contribute to determining the causes of congestion, and evaluate the efficiency and effectiveness of implemented actions.
- Identification and evaluation of the anticipated performance and expected benefits of appropriate congestion management strategies that will contribute to the more effective use and improved safety of existing and future transportation systems based on the established performance measures.
- Identification of an implementation schedule, implementation responsibilities, and possible funding sources for each strategy (or combination of strategies) proposed for implementation; and
- Implementation of a process for periodic assessment of the effectiveness of implemented strategies, in terms of the area's established performance measures.

[1] FHWA Congestion Management Process: A Guidebook, April 2011

The CMP is implemented as a stakeholder feedback process to understand congestion within the WAMPO region and implement strategies to address congestion on the transportation network. The multi-step process and workflow as proposed by FHWA to develop and carry out a CMP is further defined by an 8-step process. For reference, this 8-step process is illustrated in Figure 1, below.

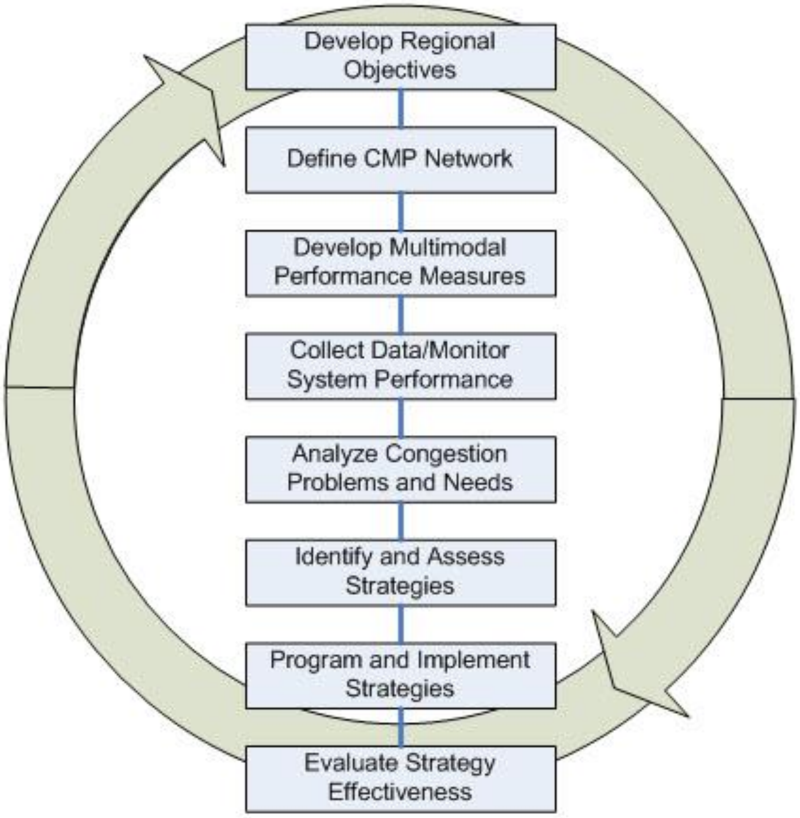



**Figure 1: 8-Step Process of a CMP**

As illustrated in the figure above, a continuous feedback loop is formed as objectives consistent across the region are stated in the metropolitan transportation plan, then data is gathered and analyzed with various tools, strategies are identified and implemented, and then effectiveness is evaluated – which ultimately leads to updated objectives and the process continues. This workflow can be followed at various levels of detail throughout the defined steps. The overarching theme is that progress is measured, and more knowledge is gained through the deployment of strategies, programs, and projects that improve the system and lessen the impacts of congestion on the network. This is what provides the positive benefit to motorists – both local community members and non-locals who utilize the system.

## CONTEXT AND REGIONAL OBJECTIVES

The WAMPO region is home to 547,230 people. As the largest metropolitan area that is entirely within the state of Kansas, the WAMPO region is responsible for 18% of Kansas's Gross Domestic Product (GDP) and has the second-highest GDP by county in the state. As the largest city in Kansas, Wichita is the regional center of business, education, healthcare, and entertainment. Home to 70% of the WAMPO regional population, the City of Wichita is surrounded by 11 adjacent cities. The remainder of the WAMPO region is comprised of a productive agricultural area and rural communities in Sedgwick, Butler, and Sumner counties.

With more than 750,000 people living within 50 miles of Wichita, the city and surrounding communities have a highly varied mix of households. The transportation system is an important mechanism for the region to achieve broader community goals of a stronger economy, talent attraction and retention, accessibility, and an enhanced quality of place. Many components, including highways and streets, bicycle and pedestrian facilities, public transit, freight, rail, and air travel, characterize the regional transportation system and provide insight into its performance.

Located on Interstate 35, one of the few corridors connecting Canada, the U.S., and Mexico, the WAMPO region connects with the major east-west I-70 via I-135 to the north and with I-40 and I-44 to the south. In general, the Wichita Area has a relatively reliable transportation system for commuters and freight.

As WAMPO develops its next Metropolitan Transportation Plan (MTP) with a goal to evaluate priorities for transportation improvements including safety, ease of travel, universal access, and improving connectivity for all modes, several objectives have been developed. The following objectives have been identified related to transportation and congestion in coordination with this CMP.

Improve Safety

- ✓ Reduce severe crashes for all modes.

Improve Efficiency of the Multimodal Network

- ✓ Minimize lost time, costs of travel, environmental impacts.
- ✓ Leverage technology, transportation demand management.

Manage reliability of the network

- ✓ Minimize unplanned travel delays and maintenance issues.

Increase mobility across the network.

- ✓ Make other modes beside single-occupant vehicles more convenient/attractive.

  (walking, biking, transit, carpooling)

These objectives are noted and utilized in the development of performance measures for the CMP.

## WAMPO CMP NETWORK

A CMP is typically applied to a specific geographic boundary or coverage area. The coverage area for the WAMPO CMP is the transportation planning boundary shown by the functional classification map in figure 2. The WAMPO planning area is the area WAMPO considers when planning and coordinating transportation related programs.

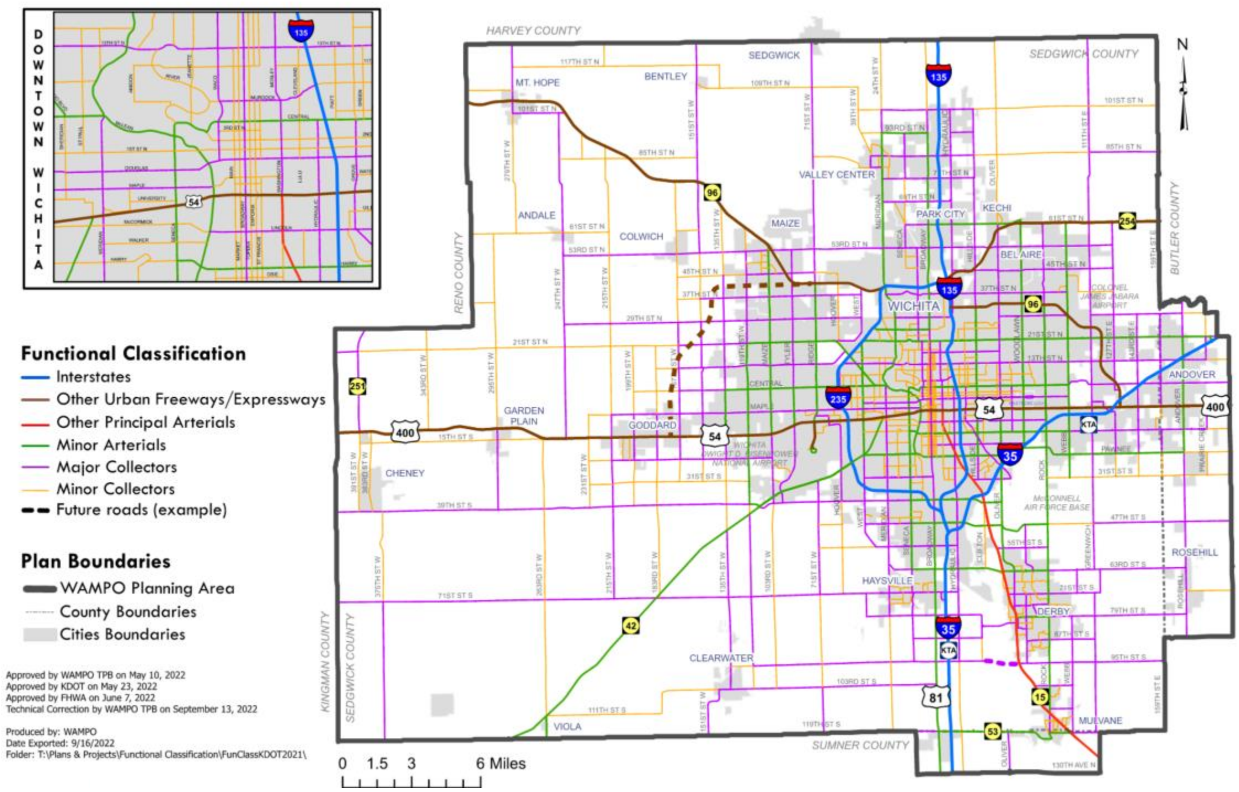



Figure 2: WAMPO Area Roadway Functional Classification

Functional Classification

Functional classification is the process by which roadways are classified by the service they provide. The primary services provided are access and mobility. Access refers to amount of accessibility and ease of entering or exiting a roadway facility from adjacent priorities while mobility refers to the ability of a roadway to move traffic. The amount of each service provided determines the classification. WAMPO has identified the following classifications for consideration in congestion management:

Arterial System:

The arterial system is comprised of the principal and minor arterial systems. The principal arterials, which includes Interstates, other freeways, and expressways, is a network designated for the highest traffic volumes and longest trips, serves major centers of activity, and/or connects major urban areas.

The minor arterial system should interconnect with the principal arterial system and provide service to trips of moderate length at somewhat of a lower level of travel mobility than principal arterials.

Collector System:

The collector system provides land access and traffic circulation within residential neighborhoods and commercial and industrial areas. WAMPO will consider major collectors for congestion management strategies and projects as relevant and applicable.

Local System:

The local system is comprised of all streets not on one of the higher systems. Local systems provide access to land and to the higher order systems. These will not be considered for congestion management strategies and projects.

ITS Network Consistency:

The WAMPO planning boundary also coincides with the geographic boundary of the Regional Intelligent Transportation Systems (ITS) Architecture. This architecture provides a blueprint of how ITS technologies will be identified, deployed, and interconnected to improve the movement of people and goods throughout the region. ITS is a way of introducing technology into the transportation network. ITS projects could be anything from on-board computers in vehicles to centralized management of traffic signal control. Since the coordinated deployment of ITS technologies is closely associated with improving traffic operations (reducing congestion), a natural association exists between the objectives of the CMP and the regional ITS architecture.

## PERFORMANCE MEASURES

Each MPO employs performance measures that include those that are required at the federal level and others that capture congestion at a local level. The local performance measures are designed to be more sensitive to the somewhat lower levels of noted congestion experienced in the WAMPO region and to better address local needs. A summary of these performance measures to be included in the CMP is provided below.

Federal performance measures (required):

- Interstate and Non-Interstate Level of Travel Time Reliability (LOTTR) Percent

The Interstate and non-Interstate National Highway System (NHS) reliability measures compare the average travel time on each road segment with the 80th percentile travel time. This is basically comparing the travel time on an average day with the travel time on the worst day of the week. If the travel time on the worst day of the week takes more than 50% longer than the average day, the segment is unreliable. If it is less than 50% longer, the segment is reliable.

This comparison is made for four different periods: weekday mornings, weekday middays, weekday evenings, and weekends. If even one of these is unreliable, the segment is considered unreliable. The segments are weighted by person-miles of travel on that segment to produce the final measure.

The data for this measure come from the National Performance Management Research Data Set (NPMRDS). This is a dataset of average real-world travel times on roadway segments gathered from cellphones and in-vehicle navigation systems. It covers the entire NHS.

The Interstate LOTTR for calendar year 2022 in the WAMPO area was .98 (98% reliability). The non-interstate data showed a 1.00 rating. Both numbers indicate that the WAMPO area transportation network is reliable most of the time. Since 2016 the interstates have been around 98.8 and the non-interstates have been 99.3% reliable. This is consistent with feedback obtained from local agency stakeholders that the predominant congestion experienced in the WAMPO region is non-recurring (caused by incidents, temporary construction zones, and unplanned events).

- Truck Travel Time Reliability Index

The Truck Travel Time Reliability (TTTR) Index compares the average truck travel time on each segment of the Interstate system with the 95th percentile travel time. This measure compares the travel time on an average day with the worst day of the month. The index is the 95th percentile travel time divided by the average travel time, so an index of 1.2 indicates that it would take 20% longer for a truck to travel that segment on the worst day of the month.

This comparison is made for five different periods: weekday mornings, weekday middays, weekday afternoons, overnights, and weekend days. The TTTR Index for the segment is the value for the worst of these five time periods. The index for each segment is weighted by length and averaged across the entire WAMPO region to get the TTTR Index for the region.

The 2022 result for the WAMPO area is calculated at 1.19 meaning that trucks would take 19% longer to travel through a road segment on the worst day of the month. In 2016 the TTTR index came in at 20% and has never been higher than 21%.

Local performance measures (additional indicators to track):

- Annual Hours of Peak Hour Excessive Delay Per Capita

Traffic congestion is measured by the annual hours of peak hour excessive delay (PHED) per capita on the NHS. The threshold for excessive delay is based on the travel time at 20 miles per hour or 60% of the posted speed limit travel time, whichever is greater, and is measured in 15-minute intervals during peak travel hours. The total excessive delay metric is then weighted by vehicle volumes and occupancy.

The results yielded 9,001 vehicle hours or .016 peak hours of delay per capita per year. In other words, an individual could experience 1 total minute of excessive delay for the year 2022. In 2017 the delay came to 1 minute 23 seconds.

- Percent Non-Single Occupancy Vehicle Travel

Single Occupancy Vehicle (SOV) use, and alternative mode share is measured using American Community Survey (ACS) Commuting (Journey to Work) data from the U.S. Census Bureau. WAMPO may use localized survey or volume/usage counts for each mode to determine the percent non-SOV travel.

The following data were produced for 2022 and shows SOV use at around 89.7% of all trips across the system.

| TRIPS | MODE | SHARE (%) |
|---|---|---|
| 131,190 | Drive Alone (SOV) | **89.7** |
| 12,896 | Carpool | 8.8 |
| 1,332 | Walk | 0.9 |
| 467 | Bike | 0.3 |
| 435 | Bus | 0.3 |
| **146,320** | **Total** | **100.0** |

**Table 1: Percent Non-Single Occupancy Vehicle Travel**

- Delay Across the System as Measured by WAMPO's Travel Demand Model

This measure uses data from the WAMPO Travel Demand Model. The model is based on the standard 4-step modeling process. Unlike other options, it allows future system performance to be forecast based on the future model network. This performance measure looks at the average delay per trip during the afternoon peak period (5-6 pm).

Per the model, Wichita commuters experience 7,570 total hours of delay daily across all trips.

- Delay Across Identified Areas of Concern (NPMRDS Data)

To add some geographic specificity to the congestion-related performance measures, WAMPO also measures delay across identified areas of concern. These "identified areas of concern" are the sites of potential bottlenecks. They are the parts of the system where one could expect performance to be the worst.

Much like the federal measures, this performance measure uses NPMRDS data to measure real-world delay. These data are used to calculate the Travel Time Index within a half-mile of the identified areas of concern. The Travel Time Index is the ratio of the average peak-period travel time to free-flow travel time. For instance, a Travel Time Index of 2 would indicate that a potential bottleneck that normally takes one minute to traverse would take two minutes during the peak period.

The average peak period travel time for each segment was calculated by looking at all the average travel times for 5-minute periods between 5 pm and 6 pm for a given month and taking the 50th percentile travel time. The free flow travel time was calculated by looking at all the average travel times for 5-minute periods outside of the peak hours (before 7 am, from 8 am to 5 pm, and after 6 pm) and taking the 15th percentile travel time.

The Travel Time Index is calculated for each segment within half a mile of each potential bottleneck location. Each segment's Travel Time Index is weighted by length to come up with an overall Travel Time Index within a half-mile of the potential bottleneck location. Based on the current results of this analysis most locations/segments in the WAMPO area were shown to have an index of 1.10 or lower. This again indicates favorable results in terms of congestion in the region. Details of these locations are included in Appendix A.

- Travel Time Uncertainty Across WAMPO Region (NPMRDS)

Travelers' perception of congestion is often driven not by typical performance, but by days when performance is particularly bad. Similarly, freight shippers who need to ensure that deliveries happen on time must build time into their schedules to account for days with longer-than-usual delays. Even if the transportation system performs well on a typical day, unreliability on a few days per month can impose significant costs. The effects of unreliability can be measured by looking at the uncertainty in the travel time.

The federal measures examining the percentage of person-miles traveled on the Interstate and the non-Interstate NHS that are reliable are intended to measure these effects. However, the highway system in the WAMPO region has been more than 98.8% reliable since 2016. To get a finer-grained look at variations in travel time reliability in the region WAMPO has adopted a more stringent travel time reliability measure.

As with the federal measures, the NPMRDS data are used to compare the worst travel times with more typical conditions. The federal measures compare the 80th percentile travel time with the 50th percentile travel time during that same time of day. This is essentially comparing the worst day of the week with the average day of the week during that time (the worst morning rush hour compared to the average morning rush hour, for weekday mornings, weekday middays, weekday evenings, and weekends).

WAMPO's travel time uncertainty measure looks at the 95th percentile travel time, roughly equivalent to the worst day of the month. It is compared to the 15th percentile travel time outside of the peak hours (before 7 am, from 8 am to 5 pm, and after 6 pm), representing the free-flow travel time with no congestion. The ratio between the two is the Planning Time Index. This makes the measure very sensitive to disruptions to the regular travel patterns, including weather events, accidents, and other special events. A Planning Time Index of 2 means that a trip that takes 10 minutes outside of rush hour would take 20 minutes on the worst weekday PM peak hour of the month. This is a much more stringent standard than the federal measure. To remove any seasonal effects and reduce the impact of random variation, WAMPO employs a 12-month rolling average.

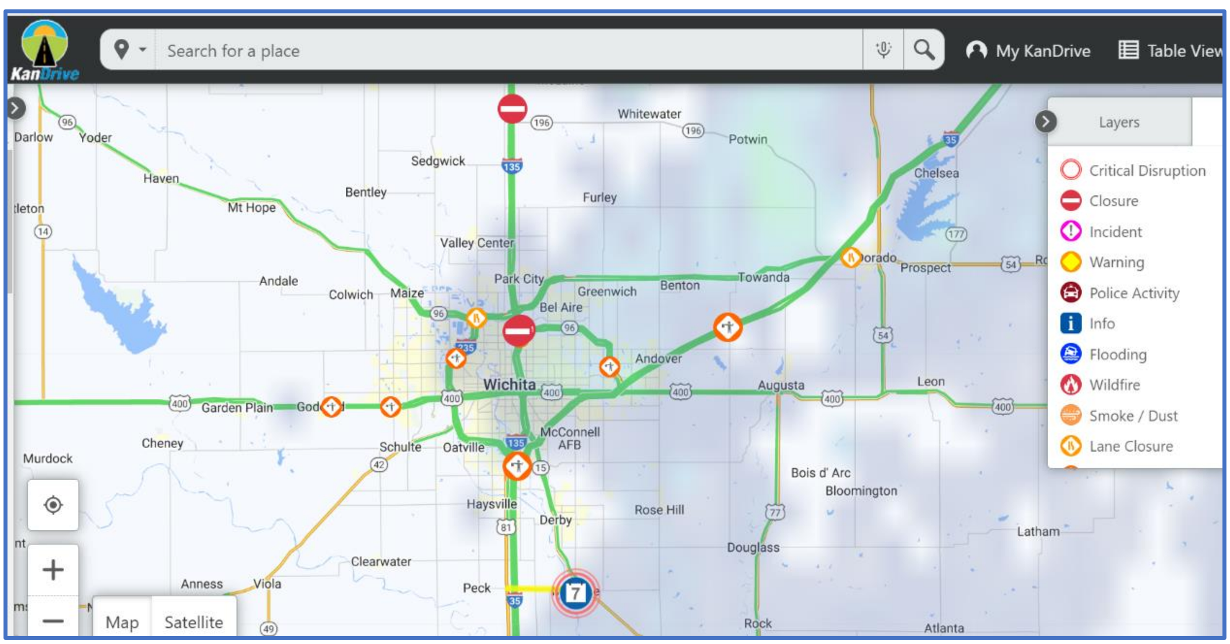
Since January 2018, the average of the previous 12 months has ranged between 1.30 and 1.38. The 2022 data came in at 1.11. Because the current values for this metric are lower (better), this metric indicates that the WAMPO region does not have an unacceptable level of congestion, even during incidents, inclement weather, and special events.

- Incident Clearance Time

One area of emphasis in the WAMPO region has been improving overall safety through the reduction of clearance time for crashes. Decreasing the amount of time that a crash scene is blocking or slowing traffic decreases the opportunities for secondary crashes. Because secondary crashes usually involve vehicles traveling at freeway speeds colliding with slowed or stationary vehicles, they are often very severe, so reducing them is a priority.

Efforts to reduce secondary crashes in the Wichita region have focused on KDOT's WICHway Traffic Management Center, as well as providing Traffic Incident Management training to police, fire, EMS, KDOT personnel, and the towing industry.

These efforts have led to a reduction in average accident clearance time from 177 minutes when WICHway first opened in 2013 to 55 minutes in 2022 as reported by WICHway.




*WICHway network screenshot*

## DATA COLLECTION AND SYSTEM PERFORMANCE

In addition to providing data on the detailed performance measures previously discussed, data collection efforts about system performance were also sought from area stakeholders. Overwhelmingly, agency stakeholders included in CMP discussions agreed that congestion in the WAMPO region is predominately defined as non-recurring congestion.

In addition, WAMPO conducted stakeholder and public engagement surveys over many subjects related to development of MTP 2050. The following results are related to congestion in the WAMPO region and are thus incorporated into the CMP for additional information.

Starting with safety, the stakeholders were asked about their general feeling of safety within the transportation system. Results as shown in Figure 3 are mixed, however only 27% of respondents noted feeling less safe or worse in Wichita compared to other areas.

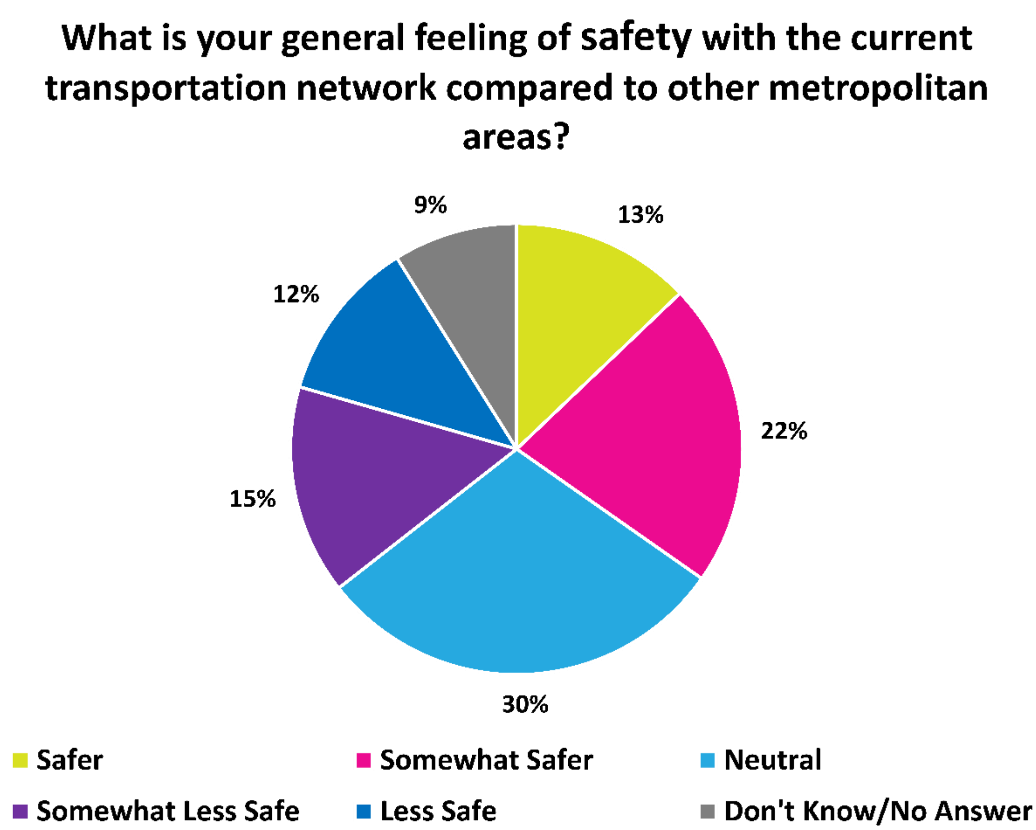



**Figure 3: Survey Results on Relative Safety While on the Transportation Network.**

As a next question related to congestion, stakeholders were asked about frequency of experiencing congestion. A majority of stakeholders reported encountering congestion either daily or weekly as illustrated in Figure 4 below.

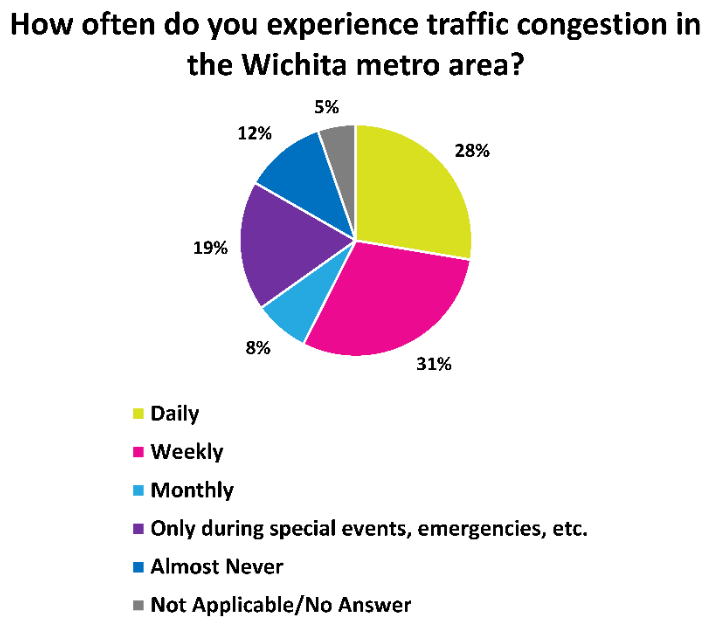



**Figure 4: Survey Results on Frequency of Congestion.**

Top reasons for congestion were also included in the survey (as illustrated in Figure 5). The top 4 reasons included construction and detours, commute volumes, crashes, and distracted drivers.

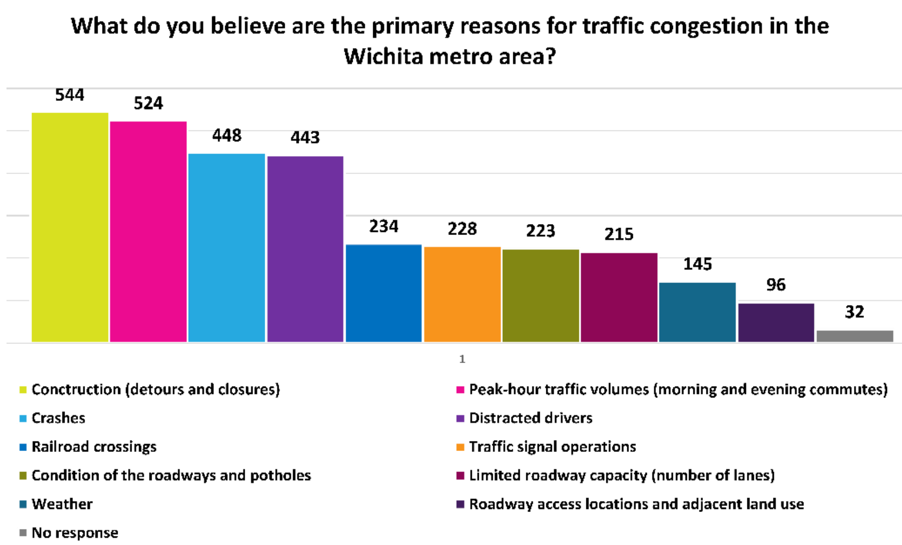



**Figure 5: Survey Results on Reasons for Congestion.**

During Stakeholder meetings the following locations/corridors were identified as congested spots in the WAMPO region, and ones that should continue to be monitored diligently moving forward. Primary reasons for these locations listed by stakeholders typically included: peak commuting times, shift changes, and railroad crossings. Also, comments were received about signal operations and peaking characteristics, etc. A listing of these top locations is included below:

- The interchange of I-135 and I-235
- The interchange of I-35 and I-135
- The interchange of US-54 and I-135
- The interchange of US-54 and I-235
- Segment of US-54 between K-96 and 159th St
- Segment of S Seneca between W Pawnee Ave and 31st St
- Segment of E 21st St between N Broadway Ave and I-135 (RR X-ings)
- Segment of K-96 between I-35 and Greenwich Rd
- Segment of Southwest Blvd between I-235 and US-54/400
- Segment of Rock Rd between US-54/400 and K-96

Through an online survey, public respondents were allowed to enter in their own words the reason they felt congestion occurred across the region. The results, (as illustrated in Figure 6), have been combined into a word cloud. The larger and bolder the responses appear in the cloud represents the most common response.

*The word cloud below was created using free responses to the question: What do you believe are the primary reasons for traffic congestion in the Wichita metro area? The purpose of the cloud is to visualize what respondents focused on when thinking about congestion. Common themes addressed in free responses include lack of public transportation options, unsafe drivers, and single occupant vehicles.*


**Figure 6: Survey Results on Reasons for Congestion (word cloud)**

Public respondents were also asked to indicate on a map where they experienced congestion during their routine experiences within the WAMPO transportation network. Figure 7 illustrates the results.

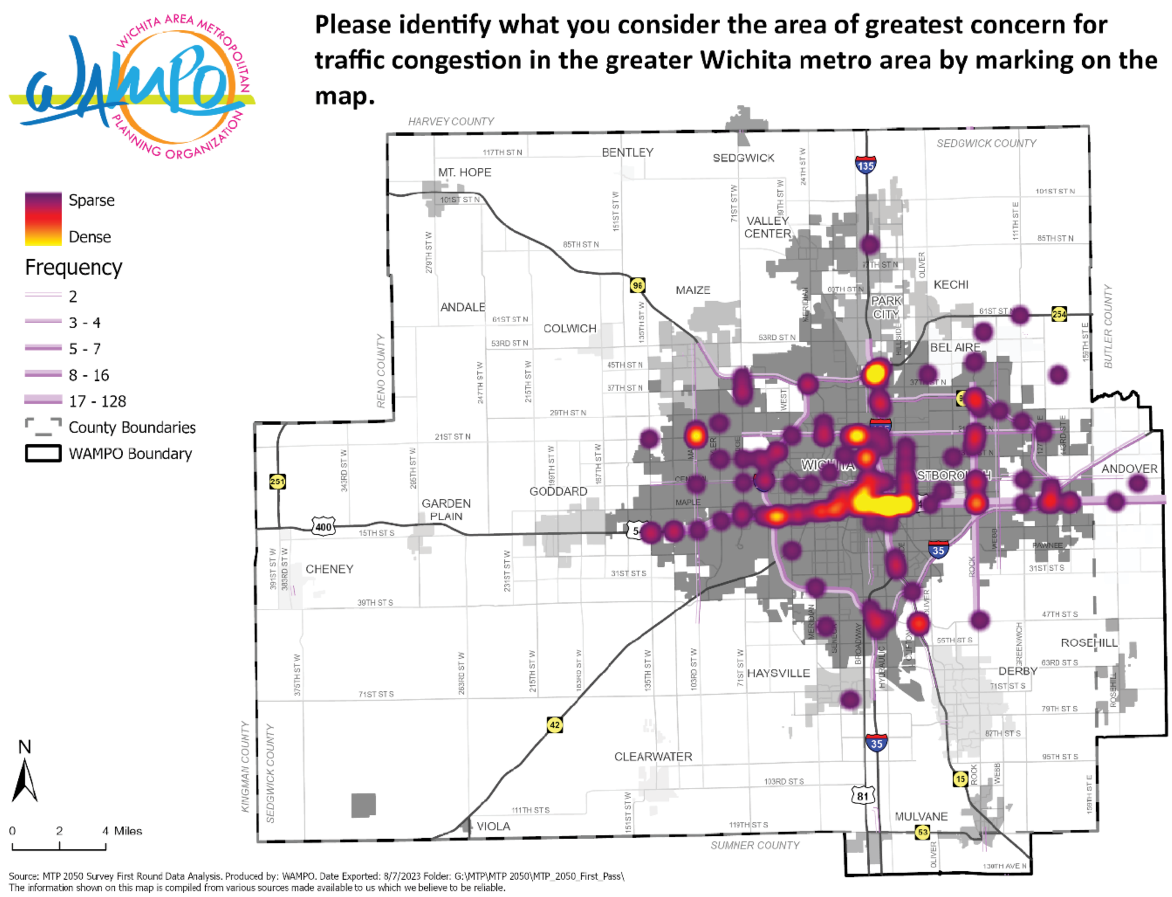



**Figure 7: Results of Crowdsourced Congested Locations.**

Based upon the results of this feedback and the mapping exercise, there appears to be consistency and correlation between the locations identified by local agency stakeholders and also the general public at large.  This provides good, consistent data relative to the locations that WAMPO staff can continue to monitor for congestion as part of on-going tracking across the network.

## ANALYSIS OF CONGESTION PROBLEMS AND NEEDS

NPMRDS information and the TDM have both been employed to identify congestion based on data sets. These tools can be utilized to analyze congestion problems and needs moving forward. Coupled with the continued stakeholder outreach data, staff can use the NPMRDS and TDM resources to find consistency in identified congestion hot spots and identify needs to help further prioritize strategies and projects.

Several of the model output graphics can successfully be used to display such areas of congestion, which are consistent with many of those locations identified by stakeholders, and additionally through the public survey information. Several figures depicting the modeled congestion during PM peak periods are provided for reference. Starting below, Figure 8 shows traffic flow characteristics for the entire metro during the existing PM peak hour period. The segments in orange or red indicate some increasing levels of traffic congestion, as identified by volume to capacity ratio (V/C). Additional figures are also provided on the following pages that zoom into areas across the WAMPO region for better clarification of hot spot locations for congestion based upon the TDM outputs.

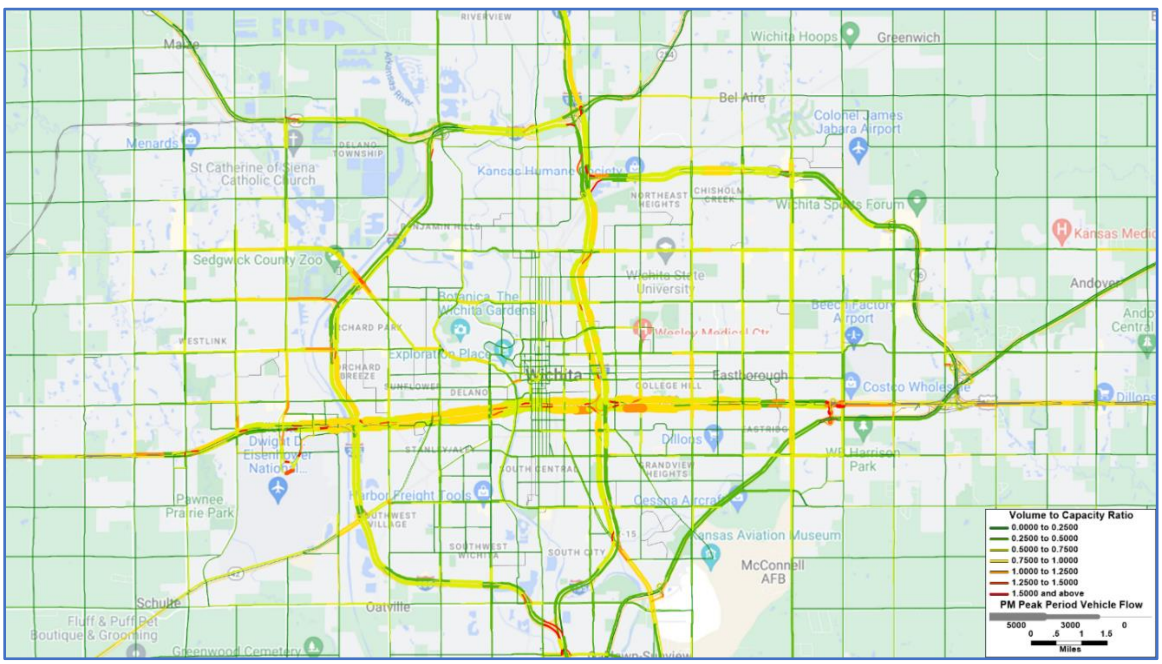



**Figure 8: WAMPO Region Traffic Flow (V/C ratio)**

Additional zoomed in sample locations of the WAMPO region are included for the TDM outputs to highlight congested areas during the PM peak period. These include:

- Central WAMPO area
- North WAMPO area
- South WAMPO area
- West WAMPO area

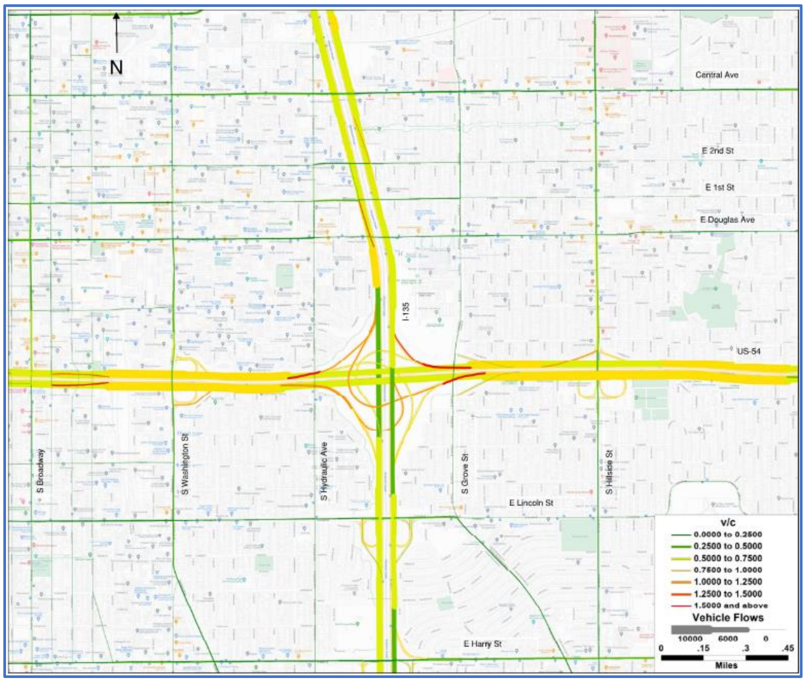



Figure 9: Central WAMPO Region Traffic Flow (V/C ratio)

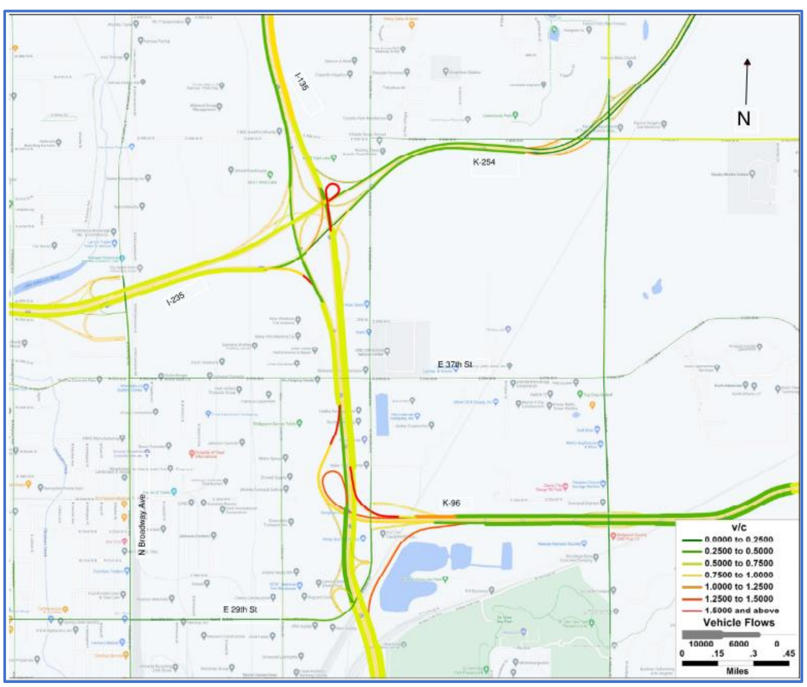



Figure 10: North WAMPO Region Traffic Flow (V/C ratio)

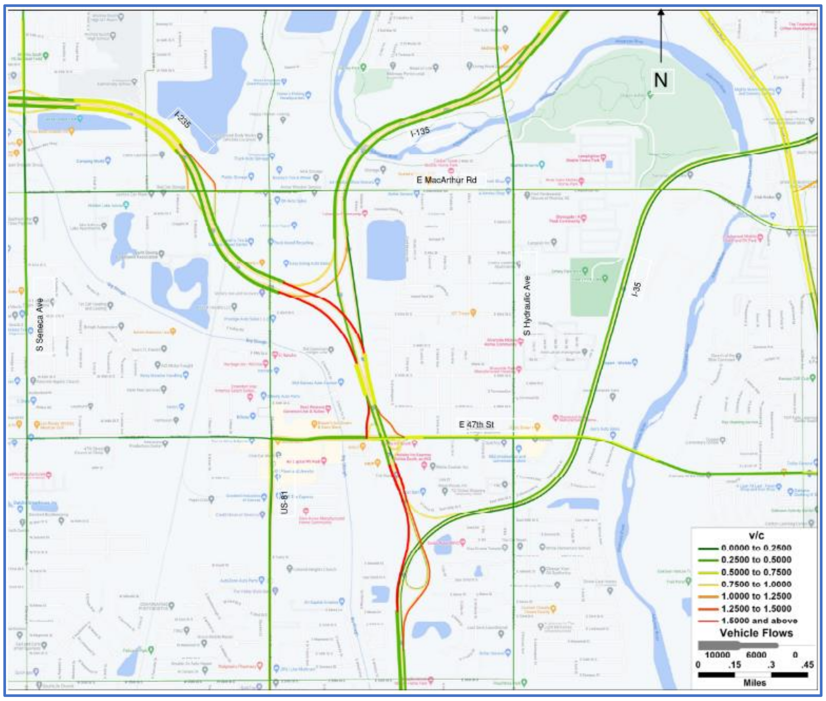



**Figure 11: South WAMPO Region Traffic Flow (V/C ratio)**

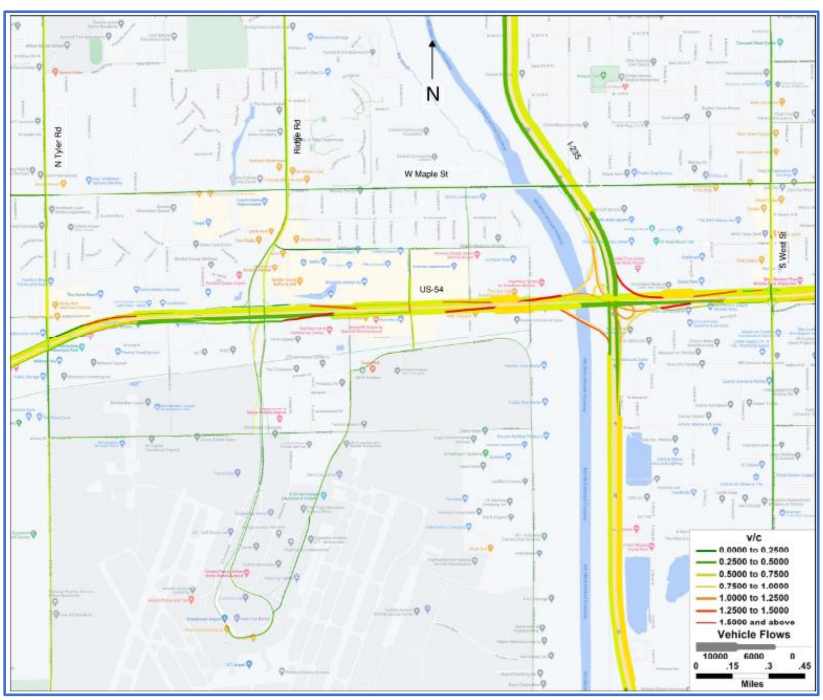



**Figure 12: West WAMPO Region Traffic Flow (V/C ratio)**

As a validated and calibrated model of the region, the TDM can be an extremely powerful tool to efficiently analyze overall freeway and surface street corridors and gain further insight to anticipated operations with changes to the network. In addition, the TDM can help provide valuable forecasting into the future based upon proposed development and major land use changes due to growth and/or redevelopment of sites that would change anticipated trip making characteristics. Based upon stakeholder feedback, public survey results, and existing conditions TDM analysis, there was found to be consistency amongst the typical congested areas in the WAMPO region. To provide further evaluation of expected increases in congestion and/or define additional corridors that may become congested in the future, the TDM was utilized to plot traffic flow conditions under a future year 2050 land use and baseline transportation network scenario. This includes the projected future growth assumptions in land use location and magnitude and also the assumed future year base transportation network improvements that are planned to be in place. The results of that traffic flow condition (V/C Ratio plot) are illustrated in Figure 13 below.

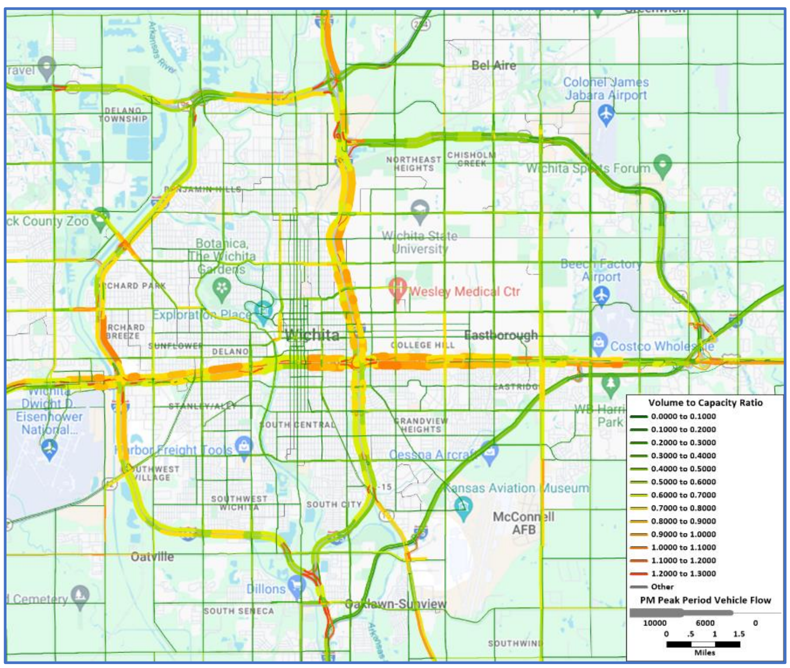



**Figure 13: WAMPO Region Traffic Flow – Future Year 2050 (V/C ratio)**

As illustrated in Figure 13, those locations that are anticipated to be congested locations for continued monitoring are those previously identified, with additional increasing congestion expected as travel demand increases on the base transportation network in the future.

Additional TDM outputs were also used to highlight congested areas and can be done so moving forward to provide yet another resource for analyzing congestion. Speed data within the TDM can be utilized by direction and by time of day to analyze congestion along desired hotspot corridors in the CMP network. The speed data were used to create heat matrices in time segments for sample corridors in the region and this can be efficiently completed for all CMP corridors as desired. As time progresses through an average day, congestion patterns emerge through reduced speeds as indicated in the plots. The average speed profile matrices that follow illustrate the Kellogg corridor showing both the eastbound and westbound directions with travel speeds by time of day. I-135 and I-235 sample plots have also been included within Appendix B.

| | 7:00 AM | 7:15 AM | 7:30 AM | 7:45 AM | 8:00 AM | 8:15 AM | 8:30 AM | 8:45 AM | 9:00 AM | 9:15 AM | 9:30 AM | 9:45 AM | 2:15 PM | 2:30 PM | 2:45 PM | 3:00 PM | 3:15 PM | 3:30 PM | 3:45 PM | 4:00 PM | 4:15 PM | 4:30 PM | 4:45 PM | 5:00 PM | 5:15 PM | 5:30 PM | 5:45 PM | 6:00 PM | 6:15 PM | 6:30 PM | 6:45 PM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S MAIZE RD | 51 | 49 | 46 | 44 | 48 | 48 | 48 | 48 | 49 | 48 | 48 | 48 | 48 | 48 | 47 | 47 | 46 | 46 | 45 | 45 | 44 | 46 | 44 | 42 | 43 | 44 | 46 | 48 | 48 | 50 | 49 |
| S TYLER RD | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 60 | 61 | 61 | 61 | 61 |
| MID CONTINENT DR (Ridge Rd) | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 60 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 62 | 61 | 62 | 61 |
| I-235 (off ramp) | 60 | 60 | 60 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 60 | 59 | 59 | 59 | 58 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 60 | 60 | 60 | 60 | 60 |
| I-235 (on ramp) | 60 | 60 | 59 | 58 | 59 | 59 | 60 | 59 | 59 | 59 | 60 | 59 | 60 | 60 | 60 | 60 | 60 | 59 | 60 | 60 | 59 | 59 | 60 | 60 | 60 | 60 | 60 | 61 | 60 | 60 | 60 |
| WEST ST (off ramp) | 61 | 60 | 57 | 51 | 58 | 60 | 60 | 61 | 61 | 61 | 61 | 61 | 61 | 62 | 61 | 62 | 62 | 61 | 61 | 61 | 61 | 61 | 61 | 62 | 62 | 61 | 61 | 62 | 62 | 62 | 62 |
| WEST ST (on ramp) | 62 | 61 | 60 | 56 | 60 | 60 | 62 | 61 | 61 | 61 | 62 | 62 | 62 | 63 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 63 | 62 | 62 | 62 | 63 | 63 | 63 | 62 |
| SOUTHWEST BLVD (on ramp) | 61 | 60 | 56 | 49 | 57 | 59 | 59 | 59 | 59 | 59 | 60 | 60 | 60 | 60 | 60 | 61 | 61 | 59 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 61 | 61 | 61 | 61 |
| SOUTHWEST BLVD (off ramp) | 61 | 60 | 55 | 47 | 56 | 59 | 60 | 60 | 60 | 60 | 60 | 60 | 61 | 61 | 61 | 61 | 61 | 59 | 60 | 61 | 61 | 60 | 61 | 61 | 61 | 60 | 60 | 61 | 61 | 61 | 61 |
| MERIDIAN AVE | 61 | 60 | 54 | 46 | 56 | 59 | 60 | 60 | 60 | 60 | 60 | 60 | 61 | 61 | 61 | 61 | 61 | 59 | 60 | 61 | 61 | 60 | 60 | 61 | 61 | 61 | 60 | 61 | 61 | 61 | 61 |
| SENECA ST (off ramp) | 62 | 61 | 57 | 54 | 58 | 60 | 60 | 60 | 60 | 60 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 60 | 60 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 62 | 62 | 61 | 63 | 62 |
| SENECA ST (on ramp) | 60 | 58 | 53 | 48 | 56 | 58 | 58 | 58 | 58 | 58 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 57 | 58 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 60 | 61 | 61 | 61 | 61 |
| MAIN ST (west leg) | 61 | 58 | 55 | 53 | 57 | 58 | 58 | 58 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 60 | 58 | 58 | 59 | 59 | 58 | 58 | 56 | 56 | 59 | 59 | 61 | 60 | 60 | 61 |
| MAIN ST (east leg) | 60 | 58 | 54 | 52 | 56 | 57 | 58 | 57 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 57 | 58 | 59 | 59 | 57 | 57 | 53 | 50 | 59 | 58 | 60 | 60 | 60 | 61 |
| MARKET ST (west leg) | 60 | 58 | 55 | 53 | 56 | 58 | 58 | 58 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 56 | 58 | 58 | 59 | 57 | 57 | 51 | 47 | 59 | 59 | 60 | 60 | 60 | 60 |
| MARKET ST (east leg) | 60 | 58 | 55 | 53 | 56 | 57 | 58 | 58 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 57 | 58 | 59 | 59 | 57 | 57 | 52 | 48 | 59 | 59 | 60 | 59 | 60 | 60 |
| BROADWAY ST (west leg) | 60 | 58 | 54 | 53 | 57 | 58 | 58 | 58 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 57 | 57 | 58 | 59 | 57 | 56 | 50 | 46 | 58 | 59 | 59 | 59 | 60 | 60 |
| BROADWAY ST (east leg) | 60 | 58 | 55 | 53 | 57 | 58 | 58 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 57 | 58 | 58 | 59 | 57 | 57 | 50 | 47 | 58 | 59 | 60 | 59 | 60 | 60 |
| TOPEKA ST (west leg) | 59 | 57 | 54 | 53 | 56 | 57 | 58 | 58 | 58 | 58 | 58 | 59 | 58 | 58 | 58 | 58 | 58 | 55 | 56 | 58 | 58 | 55 | 55 | 47 | 43 | 58 | 58 | 59 | 59 | 60 | 60 |
| TOPEKA ST (east leg) | 60 | 58 | 54 | 53 | 57 | 58 | 58 | 59 | 59 | 59 | 59 | 59 | 58 | 59 | 59 | 59 | 59 | 56 | 57 | 58 | 58 | 56 | 56 | 49 | 45 | 58 | 59 | 59 | 59 | 60 | 60 |
| S WASHINGTON ST | 58 | 56 | 53 | 53 | 55 | 56 | 57 | 57 | 57 | 56 | 57 | 57 | 57 | 56 | 57 | 57 | 57 | 54 | 55 | 55 | 56 | 54 | 54 | 49 | 46 | 56 | 57 | 58 | 58 | 58 | 59 |
| I-135/US-81 (off ramp) | 59 | 57 | 55 | 55 | 57 | 57 | 57 | 57 | 58 | 57 | 58 | 57 | 58 | 58 | 57 | 58 | 58 | 57 | 57 | 58 | 58 | 57 | 57 | 55 | 52 | 58 | 58 | 59 | 59 | 60 | 60 |
| I-135/US-81 (on ramp) | 61 | 60 | 58 | 58 | 58 | 59 | 60 | 60 | 60 | 59 | 60 | 60 | 60 | 60 | 59 | 60 | 60 | 59 | 58 | 60 | 60 | 59 | 57 | 55 | 50 | 59 | 60 | 60 | 61 | 61 | 61 |
| S HILLSIDE ST (on ramp) | 58 | 57 | 54 | 51 | 54 | 56 | 56 | 56 | 57 | 57 | 57 | 57 | 58 | 57 | 56 | 57 | 57 | 55 | 53 | 56 | 56 | 54 | 51 | 51 | 45 | 54 | 57 | 58 | 59 | 59 | 59 |
| S HILLSIDE ST (off ramp) | 57 | 54 | 52 | 51 | 52 | 54 | 55 | 55 | 55 | 55 | 56 | 55 | 56 | 54 | 54 | 55 | 55 | 54 | 52 | 54 | 55 | 53 | 51 | 51 | 47 | 53 | 55 | 56 | 56 | 56 | 56 |
| S OLIVER ST (off ramp) | 58 | 57 | 54 | 54 | 56 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 58 | 57 | 57 | 57 | 58 | 56 | 55 | 57 | 57 | 55 | 54 | 55 | 51 | 55 | 57 | 59 | 58 | 59 | 58 |
| S OLIVER ST (on ramp) | 60 | 59 | 58 | 58 | 58 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 60 | 60 | 59 | 59 | 60 | 59 | 58 | 59 | 59 | 59 | 58 | 58 | 57 | 59 | 60 | 61 | 60 | 60 | 60 |
| S WOODLAWN ST | 60 | 59 | 58 | 57 | 58 | 59 | 59 | 59 | 59 | 59 | 59 | 58 | 59 | 60 | 59 | 59 | 59 | 58 | 58 | 59 | 59 | 58 | 58 | 59 | 57 | 59 | 59 | 60 | 60 | 60 | 59 |
| S ROCK RD | 60 | 60 | 59 | 59 | 59 | 59 | 60 | 60 | 59 | 60 | 60 | 59 | 60 | 61 | 60 | 60 | 61 | 59 | 60 | 60 | 61 | 61 | 60 | 60 | 60 | 60 | 60 | 61 | 61 | 61 | 59 |
| I-35/KANSAS TPKE | 59 | 59 | 58 | 56 | 57 | 57 | 58 | 58 | 57 | 58 | 58 | 58 | 58 | 58 | 58 | 57 | 58 | 57 | 57 | 58 | 59 | 58 | 57 | 57 | 57 | 58 | 58 | 60 | 59 | 59 | 59 |
| K-96 (off ramp) | 52 | 49 | 48 | 50 | 47 | 46 | 47 | 45 | 47 | 48 | 47 | 46 | 46 | 47 | 48 | 47 | 47 | 44 | 43 | 46 | 45 | 46 | 43 | 46 | 43 | 44 | 45 | 46 | 49 | 47 | 49 |
| K-96 (on ramp) | 58 | 56 | 53 | 55 | 55 | 54 | 55 | 56 | 56 | 57 | 57 | 57 | 58 | 57 | 57 | 57 | 57 | 54 | 51 | 56 | 52 | 54 | 46 | 42 | 27 | 37 | 52 | 57 | 58 | 58 | 59 |
| ROSE HILL RD/S ANDOVER RD | 44 | 41 | 38 | 38 | 39 | 39 | 40 | 41 | 42 | 42 | 42 | 42 | 40 | 40 | 39 | 40 | 37 | 36 | 33 | 36 | 34 | 34 | 31 | 32 | 28 | 30 | 35 | 39 | 39 | 41 | 43 |

**Figure 14: Kellogg Eastbound Average Traffic Speeds by Time of Day.**

| | 7:00 AM | 7:15 AM | 7:30 AM | 7:45 AM | 8:00 AM | 8:15 AM | 8:30 AM | 8:45 AM | 9:00 AM | 9:15 AM | 9:30 AM | 9:45 AM | 2:15 PM | 2:30 PM | 2:45 PM | 3:00 PM | 3:15 PM | 3:30 PM | 3:45 PM | 4:00 PM | 4:15 PM | 4:30 PM | 4:45 PM | 5:00 PM | 5:15 PM | 5:30 PM | 5:45 PM | 6:00 PM | 6:15 PM | 6:30 PM | 6:45 PM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K-96 (off ramp) | 59 | 58 | 56 | 53 | 55 | 57 | 57 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 55 | 56 | 56 | 56 | 56 | 55 | 54 | 56 | 56 | 57 | 57 | 58 | 57 |
| K-96 (on ramp) | 41 | 36 | 32 | 29 | 35 | 37 | 37 | 37 | 39 | 41 | 40 | 40 | 39 | 38 | 38 | 38 | 37 | 37 | 36 | 37 | 36 | 37 | 36 | 36 | 36 | 36 | 37 | 38 | 38 | 40 | 41 |
| S GREENWICH RD | 53 | 53 | 49 | 48 | 49 | 49 | 50 | 51 | 51 | 48 | 49 | 49 | 48 | 49 | 47 | 49 | 45 | 47 | 47 | 47 | 46 | 47 | 46 | 47 | 47 | 49 | 48 | 48 | 49 | 50 | 50 |
| S ROCK RD | 60 | 60 | 58 | 58 | 58 | 59 | 59 | 59 | 58 | 58 | 59 | 58 | 57 | 58 | 57 | 58 | 57 | 58 | 58 | 58 | 58 | 58 | 57 | 57 | 58 | 57 | 58 | 59 | 58 | 59 | 59 |
| S WOODLAWN ST | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 60 | 60 | 60 | 60 | 59 | 60 | 59 | 60 | 60 | 60 | 59 | 59 | 60 | 60 | 60 | 59 | 59 | 60 | 59 | 60 | 60 | 61 | 60 |
| S OLIVER ST (off ramp) | 61 | 61 | 59 | 59 | 60 | 60 | 60 | 60 | 60 | 59 | 59 | 60 | 58 | 58 | 59 | 59 | 59 | 58 | 58 | 58 | 58 | 58 | 57 | 57 | 56 | 57 | 58 | 59 | 59 | 60 | 60 |
| S OLIVER ST (on ramp) | 61 | 61 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 59 | 60 | 58 | 59 | 59 | 58 | 59 | 59 | 58 | 58 | 59 | 59 | 59 | 57 | 57 | 58 | 58 | 60 | 59 | 60 | 60 |
| S HILLSIDE ST (off ramp) | 62 | 60 | 58 | 56 | 59 | 60 | 61 | 61 | 60 | 60 | 60 | 60 | 59 | 59 | 59 | 59 | 59 | 58 | 57 | 59 | 59 | 57 | 57 | 54 | 50 | 57 | 58 | 59 | 60 | 61 | 61 |
| S HILLSIDE ST (on ramp) | 61 | 60 | 57 | 56 | 59 | 60 | 60 | 59 | 59 | 59 | 59 | 59 | 58 | 58 | 58 | 58 | 58 | 57 | 57 | 57 | 57 | 56 | 56 | 55 | 52 | 56 | 56 | 58 | 59 | 59 | 60 |
| I-135/US-81 (off ramp) | 62 | 61 | 60 | 57 | 60 | 60 | 60 | 61 | 61 | 60 | 60 | 60 | 59 | 59 | 59 | 60 | 60 | 59 | 57 | 59 | 59 | 58 | 56 | 54 | 46 | 58 | 60 | 61 | 61 | 61 | 62 |
| I-135/US-81 (on ramp) | 61 | 59 | 57 | 55 | 58 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 58 | 58 | 58 | 58 | 57 | 56 | 56 | 57 | 57 | 56 | 55 | 53 | 49 | 56 | 58 | 58 | 58 | 60 | 60 |
| S WASHINGTON ST | 58 | 58 | 55 | 48 | 53 | 57 | 56 | 56 | 57 | 57 | 57 | 57 | 57 | 55 | 54 | 56 | 56 | 54 | 50 | 54 | 54 | 51 | 50 | 46 | 37 | 53 | 57 | 59 | 59 | 59 | 61 |
| TOPEKA ST (off ramp) | 60 | 60 | 59 | 56 | 58 | 59 | 58 | 59 | 59 | 59 | 59 | 59 | 59 | 58 | 57 | 58 | 58 | 56 | 55 | 56 | 56 | 54 | 51 | 46 | 39 | 53 | 58 | 59 | 60 | 61 | 61 |
| TOPEKA ST (west leg) | 59 | 58 | 56 | 52 | 55 | 56 | 56 | 56 | 57 | 57 | 57 | 57 | 57 | 56 | 55 | 56 | 56 | 54 | 52 | 54 | 54 | 51 | 49 | 45 | 38 | 52 | 56 | 58 | 59 | 59 | 60 |
| BROADWAY ST (east leg) | 60 | 60 | 59 | 57 | 59 | 59 | 59 | 59 | 59 | 60 | 60 | 60 | 59 | 58 | 57 | 58 | 58 | 57 | 55 | 56 | 56 | 54 | 52 | 46 | 39 | 53 | 58 | 59 | 60 | 61 | 62 |
| BROADWAY ST (west leg) | 60 | 60 | 59 | 58 | 59 | 59 | 58 | 59 | 59 | 60 | 60 | 60 | 59 | 58 | 58 | 59 | 59 | 57 | 55 | 57 | 56 | 54 | 52 | 45 | 39 | 53 | 58 | 60 | 60 | 61 | 62 |
| MARKET ST (east leg) | 60 | 60 | 60 | 58 | 59 | 60 | 58 | 59 | 59 | 60 | 60 | 60 | 59 | 58 | 58 | 59 | 59 | 57 | 56 | 57 | 56 | 54 | 52 | 45 | 39 | 53 | 58 | 60 | 61 | 61 | 62 |
| MARKET ST (west leg) | 60 | 60 | 60 | 58 | 59 | 60 | 59 | 59 | 59 | 59 | 60 | 60 | 59 | 58 | 58 | 59 | 59 | 57 | 56 | 57 | 56 | 54 | 52 | 45 | 39 | 53 | 58 | 60 | 60 | 61 | 62 |
| MAIN ST (on ramp) | 60 | 60 | 60 | 58 | 59 | 60 | 59 | 59 | 59 | 59 | 60 | 60 | 59 | 58 | 58 | 59 | 59 | 57 | 56 | 57 | 56 | 54 | 52 | 45 | 39 | 53 | 58 | 60 | 60 | 61 | 62 |
| SENECA ST (off ramp) | 60 | 60 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 60 | 59 | 59 | 59 | 58 | 59 | 58 | 57 | 56 | 56 | 55 | 54 | 50 | 45 | 40 | 52 | 57 | 58 | 59 | 60 | 61 |
| SENECA ST (on ramp) | 61 | 61 | 60 | 60 | 60 | 61 | 60 | 61 | 60 | 61 | 61 | 61 | 61 | 60 | 60 | 60 | 59 | 58 | 56 | 57 | 56 | 55 | 51 | 45 | 40 | 52 | 58 | 60 | 61 | 62 | 63 |
| MERIDIAN AVE (off ramp) | 60 | 59 | 59 | 58 | 58 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 58 | 59 | 58 | 57 | 55 | 56 | 56 | 55 | 52 | 48 | 44 | 53 | 58 | 60 | 60 | 61 | 61 |
| MERIDIAN AVE (west leg) | 61 | 60 | 60 | 60 | 59 | 60 | 59 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 59 | 58 | 57 | 57 | 58 | 57 | 56 | 53 | 51 | 56 | 59 | 60 | 61 | 61 | 61 |
| SOUTHWEST BLVD | 60 | 60 | 60 | 59 | 59 | 59 | 59 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 59 | 60 | 59 | 58 | 57 | 57 | 58 | 56 | 56 | 53 | 51 | 56 | 59 | 60 | 61 | 61 | 61 |
| WEST ST (off ramp) | 59 | 59 | 58 | 59 | 58 | 58 | 59 | 59 | 59 | 58 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 57 | 56 | 57 | 57 | 56 | 56 | 53 | 51 | 56 | 59 | 60 | 60 | 61 | 61 |
| WEST ST (on ramp) | 61 | 60 | 60 | 61 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 58 | 57 | 58 | 58 | 56 | 56 | 52 | 51 | 56 | 59 | 60 | 61 | 61 | 61 |
| I-235 (off ramp) | 60 | 59 | 59 | 59 | 58 | 58 | 59 | 59 | 59 | 59 | 59 | 58 | 59 | 58 | 59 | 58 | 59 | 57 | 57 | 57 | 58 | 56 | 56 | 53 | 53 | 57 | 58 | 60 | 60 | 60 | 60 |
| I-235 (on ramp) | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 60 | 59 | 59 | 59 | 60 | 59 | 59 | 59 | 59 | 59 | 59 | 58 | 56 | 58 | 59 | 60 | 61 | 61 | 61 |
| MID CONTINENT DR (off) | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 58 | 59 | 60 | 61 | 61 | 61 | 60 |
| MID CONTINENT DR (on) | 59 | 58 | 59 | 58 | 59 | 59 | 58 | 59 | 59 | 58 | 58 | 58 | 59 | 59 | 59 | 59 | 59 | 59 | 58 | 58 | 58 | 58 | 58 | 58 | 56 | 57 | 58 | 59 | 59 | 59 | 59 |
| S TYLER RD | 57 | 57 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 57 | 57 | 57 | 57 | 57 | 56 | 56 | 56 | 57 | 56 | 56 | 56 | 54 | 55 | 57 | 58 | 58 | 58 | 58 |
| S MAIZE RD | 58 | 58 | 59 | 58 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 58 | 57 | 58 | 58 | 58 | 56 | 56 | 57 | 57 | 57 | 57 | 56 | 54 | 56 | 57 | 59 | 59 | 59 | 58 |
| S 119TH ST W/MILLBROOK RD | 49 | 50 | 50 | 49 | 50 | 49 | 50 | 50 | 51 | 51 | 50 | 51 | 50 | 50 | 50 | 51 | 49 | 47 | 47 | 48 | 48 | 47 | 47 | 45 | 43 | 47 | 50 | 50 | 51 | 53 | 52 |

**Figure 15: Kellogg Westbound Average Traffic Speeds by Time of Day.**

These types of illustrations from analysis of the data can be shared with the MPO boards and committees as projects are brought forward and strategies proposed. The agencies within the MPO can work together to address the typical causes of congestion in the regional transportation system and use these analytics to further identify needs and funding of programs and projects. Many of those typical causes of congestion include inefficient performance areas such as: physical bottlenecks in streets and intersections, access management issues along heavily traveled corridors, and the need for improved signal timing updates. Other less typical causes resulting in unreliable performance include those items such as: traffic incidents, weather issues, temporary traffic control work zones, and special event management for large traffic generators.

## IDENTIFY AND ASSESS STRATEGIES

The CMP framework can be used to collect data, analyze the data, identify issues then evaluate and assess strategies that make impacts to improve recurring and non-recurring congestion. Identifying and assessing strategies is a pivotal phase within the Congestion Management Process (CMP), where a wide range of solutions is explored to mitigate congestion effectively. This phase involves a thorough analysis of potential strategies tailored to the specific needs and challenges of the transportation network in question. As WAMPO continues to build a toolbox and process for working through this phase, the following tasks can be leveraged:

Strategy Identification:

During this stage, transportation professionals, planners, and stakeholders can collaborate to brainstorm and identify a spectrum of strategies. These strategies encompass various areas, such as traffic flow optimization, public transportation enhancements, intelligent transportation systems, and demand management initiatives. The goal is to compile a comprehensive list of potential solutions that can address congestion across different modes of transportation.

Strategy Assessment:

Each identified strategy undergoes a rigorous assessment process. Factors such as feasibility, cost-effectiveness, environmental impact, and fair treatment across communities are evaluated. Additionally, strategies are scrutinized based on their potential to alleviate congestion, enhance overall mobility, and align with the regional objectives defined earlier in the CMP process. Advanced techniques utilizing the WAMPO TDM and data analysis tools (NPMRDS) will play a significant role in assessing the potential impact of these strategies on the transportation network.

Stakeholder Engagement:

Input from various stakeholders, including those involved in this CMP to date who are passionate local champions for keeping congestion at bay in the Wichita region should continue to be included in the process (KDOT, WICHway, local municipalities, emergency responders, transit, freight organizations, etc.). Their input is invaluable during the assessment phase. Stakeholder engagement ensures that strategies are evaluated not only from a technical standpoint but also in the context of community needs and preferences. Public feedback helps in refining strategies and ensures that the selected solutions resonate with the community's expectations.

Flexibility and Innovation:

The assessment phase emphasizes the importance of flexibility and innovation. Emerging technologies and unconventional approaches are considered alongside traditional strategies. This openness to innovation enables the CMP to adapt to changing transportation landscapes, making it possible to incorporate cutting-edge solutions that might not have been viable in the past.

Developing a Comprehensive Strategy Portfolio:

By the end of this phase, a carefully curated portfolio of strategies emerges. These strategies are not isolated solutions but rather interlinked components of a broader congestion management process consistent and coordinated with the MTP. The synergy between these strategies enhances their overall impact, creating a robust and adaptable framework for addressing congestion challenges in the WAMPO region.

The result of this “identify and assess strategies” phase is a well-informed selection of strategies that forms the backbone of the Congestion Management Process, paving the way for effective implementation and continuous improvement in the transportation system.

## PROGRAMMING AND IMPLEMENTATION OF STRATEGIES

Strategies developed because of the CMP will be incorporated into the evaluation and prioritization of both the MTP and Transportation Improvement Program (TIP). As CMP information influences the decision-making process as another tool for WAMPO stakeholders, the CMP objectives will be acknowledged and supported. This will lead to various projects that are funded for the transportation system that continue to reduce congestion and improve safety across the region.

## EVALUATION OF STRATEGY EFFECTIVENESS

With implementation of various improvement strategies and the ongoing measurement of selected congestion performance measures, data will show periodic progress both before and after completion. These results will serve as a benchmark resource for future planning and investment decisions as each implementation is evaluated for effectiveness. They will also illustrate transportation needs in an on-going, iterative process for the region. These evaluations along with continued monitoring for changes in travel demands will be used for mitigation of future congestion by employing proven strategies.

## APPENDIX A - Delay Across Identified Areas of Concern (NPMRDS Data)

*(sample locations selected and referenced from page 13)*

| Location | Travel Time Index |
|---|---|
| The interchange of I-135 and I-235 (South) | 1.108 AM, 1.099 PM |
| The interchange of I-35 and I-135 | 1.089 AM, 1.085 PM |
| The interchange of US-54 and I-135 | 1.124 AM, 1.127 PM |
| The interchange of I-135 and I-235 (North) | 1.166 AM, 1.181 PM |
| US-54 between K-96 and S Andover Rd | 1.447 AM, 1.558 PM |
| S Seneca St between W Pawnee Ave and 31st St | 1.100 AM, 1.100 PM |
| E 21st St between N Broadway Ave and I-135 | 1.100 AM, 1.100 PM |
| K-96 between I-35 and Greenwich Rd | 1.073 AM, 1.080 PM |
| Southwest Blvd between I-235 and US-54/400 | 1.841 AM, 1.869 PM |
| Rock Rd between US-54/400 and K-96 | 1.100 AM, 1.100 PM |

## APPENDIX B – Speed Matrices by Time of Day

| | 7:00 AM | 7:15 AM | 7:30 AM | 7:45 AM | 8:00 AM | 8:15 AM | 8:30 AM | 8:45 AM | 9:00 AM | 9:15 AM | 9:30 AM | 9:45 AM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| I-235/EXIT 1 | 51 | 50 | 51 | 51 | 50 | 49 | 51 | 51 | 51 | 51 | 51 | 50 |
| HYDRAULIC ST/EXIT 2 (off) | 60 | 61 | 60 | 61 | 61 | 60 | 61 | 61 | 61 | 61 | 61 | 61 |
| HYDRAULIC ST/EXIT 2 (on) | 62 | 62 | 61 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 |
| KS-15/SOUTHEAST BLVD/EXIT 3 | 61 | 62 | 61 | 62 | 61 | 61 | 62 | 61 | 61 | 62 | 62 | 62 |
| PAWNEE ST/EXIT 3 (off) | 61 | 61 | 60 | 61 | 61 | 61 | 60 | 61 | 60 | 60 | 61 | 61 |
| PAWNEE ST/EXIT 3 (on) | 61 | 60 | 59 | 60 | 60 | 60 | 61 | 60 | 60 | 61 | 61 | 61 |
| HARRY ST/EXIT 4 (off) | 62 | 62 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 |
| HARRY ST/EXIT 4 (on) | 62 | 62 | 60 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 62 |
| LINCOLN ST/EXIT 5 (off) | 61 | 61 | 59 | 60 | 60 | 61 | 60 | 60 | 61 | 61 | 61 | 61 |
| LINCOLN ST/EXIT 5 (on) | 61 | 61 | 59 | 59 | 60 | 61 | 60 | 60 | 61 | 61 | 61 | 61 |
| US-400/US-54/E KELLOGG DR/EXIT 5 | 61 | 61 | 59 | 59 | 60 | 60 | 59 | 60 | 60 | 60 | 60 | 60 |
| US-400/US-54/E KELLOGG DR/EXIT 5 | 61 | 61 | 59 | 59 | 60 | 60 | 59 | 60 | 60 | 61 | 61 | 61 |
| 1ST ST/EXIT 6 (off ramp) | 60 | 60 | 57 | 57 | 59 | 58 | 58 | 58 | 59 | 59 | 59 | 59 |
| 1ST ST/EXIT 6 (north leg) | 60 | 61 | 58 | 57 | 59 | 59 | 59 | 59 | 60 | 60 | 60 | 60 |
| 2ND ST/EXIT 6 (on ramp) | 60 | 61 | 59 | 57 | 60 | 60 | 59 | 60 | 60 | 60 | 60 | 60 |
| CENTRAL AVE/EXIT 7 (south leg) | 60 | 61 | 58 | 56 | 59 | 59 | 59 | 60 | 60 | 60 | 60 | 60 |
| CENTRAL AVE/EXIT 7 (on ramp) | 60 | 61 | 58 | 56 | 60 | 60 | 59 | 60 | 60 | 60 | 60 | 60 |
| 9TH ST/EXIT 7 (off) | 60 | 61 | 58 | 55 | 59 | 59 | 59 | 59 | 60 | 60 | 60 | 60 |
| 9TH ST/EXIT 7 (on) | 61 | 61 | 59 | 56 | 60 | 60 | 59 | 60 | 60 | 60 | 60 | 60 |
| 13TH ST/E 8TH ST N/EXIT 8 (off) | 61 | 61 | 60 | 57 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 |
| 13TH ST/E 8TH ST N/EXIT 8 (on) | 61 | 61 | 59 | 56 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 |
| 21ST ST/EXIT 9 (off) | 61 | 61 | 60 | 59 | 60 | 59 | 59 | 59 | 59 | 60 | 60 | 60 |
| 21ST ST/EXIT 9 (on) | 61 | 61 | 61 | 59 | 60 | 60 | 60 | 60 | 60 | 61 | 61 | 61 |
| KS-96/EXIT 10 | 59 | 59 | 59 | 59 | 59 | 59 | 58 | 59 | 57 | 59 | 59 | 59 |
| HYDRAULIC ST/29TH ST/EXIT 10 (off) | 61 | 61 | 60 | 54 | 58 | 60 | 60 | 60 | 60 | 60 | 61 | 61 |
| HYDRAULIC ST/29TH ST/EXIT 10 (on) | 61 | 60 | 60 | 60 | 60 | 60 | 59 | 59 | 58 | 59 | 59 | 60 |
| I-235/KS-254/KS-96/EXIT 11 (off) | 56 | 56 | 53 | 53 | 55 | 55 | 56 | 55 | 54 | 55 | 55 | 55 |
| I-235/KS-254/KS-96/EXIT 11 (on) | 56 | 55 | 54 | 54 | 55 | 55 | 55 | 54 | 53 | 55 | 55 | 55 |
| 53RD ST/EXIT 13 (off) | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 63 | 64 | 64 | 64 |
| 53RD ST/EXIT 13 (on) | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 60 | 61 | 61 | 61 |
| 61ST ST/EXIT 14 (off) | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 67 | 67 | 68 | 68 |
| 61ST ST/EXIT 14 (on) | 67 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 65 | 66 | 66 | 66 |
| 77TH ST/EXIT 16 (off) | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 68 | 69 | 68 | 69 |
| 77TH ST/EXIT 16 (on) | 71 | 72 | 72 | 72 | 71 | 71 | 71 | 71 | 70 | 70 | 71 | 71 |
| 85TH ST/EXIT 17 (off) | 71 | 72 | 72 | 72 | 71 | 71 | 71 | 71 | 70 | 70 | 70 | 70 |
| 85TH ST/EXIT 17 (on) | 71 | 72 | 72 | 72 | 71 | 71 | 71 | 71 | 70 | 70 | 70 | 71 |
| 101ST ST/EXIT 19 (off) | 72 | 73 | 73 | 73 | 72 | 72 | 71 | 71 | 71 | 71 | 71 | 71 |
| 101ST ST/EXIT 19 (on) | 73 | 74 | 74 | 74 | 73 | 73 | 73 | 73 | 72 | 72 | 72 | 72 |
| 125TH ST/EXIT 22 (off) | 74 | 75 | 75 | 75 | 74 | 74 | 74 | 74 | 73 | 73 | 73 | 73 |
| 125TH ST/EXIT 22 (on) | 73 | 74 | 75 | 75 | 74 | 74 | 73 | 73 | 73 | 72 | 72 | 72 |

| | 2:15 PM | 2:30 PM | 2:45 PM | 3:00 PM | 3:15 PM | 3:30 PM | 3:45 PM | 4:00 PM | 4:15 PM | 4:30 PM | 4:45 PM | 5:00 PM | 5:15 PM | 5:30 PM | 5:45 PM | 6:00 PM | 6:15 PM | 6:30 PM | 6:45 PM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| I-235/EXIT 1 | 51 | 52 | 51 | 51 | 52 | 51 | 51 | 51 | 52 | 52 | 52 | 52 | 50 | 52 | 51 | 52 | 50 | 50 | 50 |
| HYDRAULIC ST/EXIT 2 (off) | 62 | 62 | 62 | 61 | 62 | 62 | 62 | 62 | 61 | 62 | 61 | 62 | 61 | 62 | 61 | 61 | 61 | 61 | 61 |
| HYDRAULIC ST/EXIT 2 (on) | 62 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 64 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 62 | 63 |
| KS-15/SOUTHEAST BLVD/EXIT 3 | 62 | 62 | 62 | 62 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 62 | 63 | 62 | 63 | 62 | 62 | 63 |
| PAWNEE ST/EXIT 3 (off) | 61 | 61 | 60 | 60 | 61 | 61 | 60 | 61 | 61 | 61 | 62 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 62 |
| PAWNEE ST/EXIT 3 (on) | 61 | 60 | 60 | 60 | 60 | 60 | 60 | 61 | 61 | 61 | 61 | 60 | 60 | 61 | 61 | 61 | 61 | 61 | 61 |
| HARRY ST/EXIT 4 (off) | 62 | 62 | 61 | 61 | 62 | 61 | 61 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 |
| HARRY ST/EXIT 4 (on) | 62 | 62 | 61 | 61 | 61 | 61 | 61 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 |
| LINCOLN ST/EXIT 5 (off) | 62 | 61 | 60 | 60 | 61 | 60 | 60 | 61 | 61 | 61 | 61 | 61 | 61 | 62 | 61 | 62 | 61 | 62 | 62 |
| LINCOLN ST/EXIT 5 (on) | 62 | 61 | 60 | 60 | 61 | 61 | 60 | 61 | 61 | 61 | 61 | 62 | 61 | 62 | 62 | 62 | 62 | 62 | 62 |
| US-400/US-54/E KELLOGG DR/EXIT 5 | 61 | 61 | 61 | 60 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 62 | 62 | 62 | 62 | 61 | 62 |
| US-400/US-54/E KELLOGG DR/EXIT 5 | 61 | 61 | 60 | 60 | 60 | 61 | 60 | 61 | 61 | 61 | 60 | 61 | 61 | 61 | 61 | 62 | 61 | 61 | 62 |
| 1ST ST/EXIT 6 (off ramp) | 60 | 59 | 59 | 59 | 60 | 59 | 59 | 60 | 60 | 60 | 60 | 60 | 60 | 61 | 61 | 61 | 61 | 61 | 61 |
| 1ST ST/EXIT 6 (north leg) | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 61 | 61 | 61 | 61 | 60 | 60 | 61 | 62 | 62 | 62 | 62 | 62 |
| 2ND ST/EXIT 6 (on ramp) | 60 | 60 | 60 | 60 | 61 | 60 | 60 | 61 | 61 | 61 | 61 | 60 | 60 | 61 | 62 | 62 | 62 | 62 | 62 |
| CENTRAL AVE/EXIT 7 (south leg) | 59 | 59 | 59 | 59 | 60 | 60 | 59 | 59 | 59 | 59 | 59 | 57 | 56 | 60 | 61 | 61 | 61 | 61 | 61 |
| CENTRAL AVE/EXIT 7 (on ramp) | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 59 | 58 | 61 | 61 | 61 | 62 | 62 | 61 |
| 9TH ST/EXIT 7 (off) | 59 | 59 | 59 | 59 | 59 | 59 | 58 | 59 | 59 | 59 | 58 | 56 | 55 | 60 | 60 | 61 | 60 | 61 | 61 |
| 9TH ST/EXIT 7 (on) | 59 | 59 | 59 | 60 | 60 | 60 | 59 | 60 | 60 | 59 | 59 | 57 | 56 | 60 | 61 | 62 | 61 | 61 | 61 |
| 13TH ST/E 8TH ST N/EXIT 8 (off) | 60 | 59 | 59 | 60 | 60 | 60 | 59 | 60 | 60 | 59 | 59 | 58 | 58 | 61 | 61 | 62 | 62 | 61 | 62 |
| 13TH ST/E 8TH ST N/EXIT 8 (on) | 59 | 59 | 59 | 60 | 60 | 59 | 58 | 60 | 60 | 59 | 58 | 57 | 56 | 60 | 61 | 62 | 62 | 61 | 62 |
| 21ST ST/EXIT 9 (off) | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 61 | 60 | 60 | 60 | 60 | 59 | 61 | 61 | 62 | 61 | 61 | 61 |
| 21ST ST/EXIT 9 (on) | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 60 | 61 | 62 | 62 | 62 | 62 | 62 |
| KS-96/EXIT 10 | 59 | 59 | 59 | 59 | 58 | 56 | 50 | 53 | 51 | 49 | 45 | 45 | 36 | 46 | 57 | 60 | 60 | 61 | 61 |
| HYDRAULIC ST/29TH ST/EXIT 10 (off) | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 60 | 60 | 59 | 57 | 61 | 62 | 62 | 62 | 62 | 62 |
| HYDRAULIC ST/29TH ST/EXIT 10 (on) | 60 | 60 | 60 | 60 | 60 | 58 | 55 | 57 | 56 | 55 | 53 | 52 | 45 | 54 | 60 | 62 | 61 | 62 | 62 |
| I-235/KS-254/KS-96/EXIT 11 (off) | 55 | 54 | 53 | 53 | 51 | 43 | 39 | 40 | 35 | 37 | 35 | 34 | 32 | 35 | 46 | 54 | 56 | 56 | 57 |
| I-235/KS-254/KS-96/EXIT 11 (on) | 54 | 54 | 52 | 53 | 51 | 43 | 34 | 38 | 31 | 32 | 29 | 29 | 21 | 27 | 43 | 55 | 56 | 56 | 57 |
| 53RD ST/EXIT 13 (off) | 64 | 64 | 64 | 64 | 64 | 64 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 62 | 64 | 65 | 65 | 65 | 64 |
| 53RD ST/EXIT 13 (on) | 61 | 61 | 61 | 61 | 61 | 61 | 60 | 60 | 59 | 60 | 60 | 60 | 60 | 59 | 61 | 62 | 62 | 62 | 62 |
| 61ST ST/EXIT 14 (off) | 67 | 68 | 68 | 67 | 67 | 68 | 66 | 66 | 66 | 66 | 66 | 66 | 65 | 65 | 67 | 69 | 68 | 68 | 69 |
| 61ST ST/EXIT 14 (on) | 66 | 66 | 67 | 66 | 66 | 66 | 65 | 65 | 65 | 65 | 65 | 65 | 64 | 64 | 66 | 67 | 66 | 67 | 67 |
| 77TH ST/EXIT 16 (off) | 69 | 69 | 70 | 69 | 69 | 69 | 68 | 68 | 68 | 68 | 67 | 67 | 66 | 67 | 68 | 70 | 70 | 70 | 70 |
| 77TH ST/EXIT 16 (on) | 71 | 71 | 71 | 71 | 71 | 72 | 72 | 71 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 73 | 72 | 73 |
| 85TH ST/EXIT 17 (off) | 71 | 71 | 71 | 71 | 70 | 71 | 72 | 71 | 72 | 72 | 72 | 72 | 72 | 71 | 72 | 72 | 72 | 72 | 72 |
| 85TH ST/EXIT 17 (on) | 71 | 71 | 72 | 71 | 71 | 72 | 72 | 72 | 72 | 72 | 73 | 73 | 73 | 72 | 73 | 72 | 73 | 72 | 73 |
| 101ST ST/EXIT 19 (off) | 72 | 72 | 72 | 72 | 71 | 72 | 73 | 72 | 73 | 73 | 73 | 73 | 74 | 73 | 73 | 73 | 73 | 73 | 73 |
| 101ST ST/EXIT 19 (on) | 73 | 73 | 73 | 73 | 72 | 73 | 74 | 74 | 74 | 74 | 75 | 75 | 75 | 75 | 75 | 74 | 75 | 74 | 74 |
| 125TH ST/EXIT 22 (off) | 74 | 74 | 74 | 74 | 73 | 74 | 75 | 74 | 74 | 75 | 75 | 75 | 75 | 75 | 75 | 74 | 75 | 75 | 75 |
| 125TH ST/EXIT 22 (on) | 73 | 73 | 73 | 73 | 73 | 74 | 74 | 74 | 74 | 74 | 75 | 75 | 75 | 74 | 74 | 74 | 75 | 75 | 74 |

**Figure 16: I-135 Northbound Average Traffic Speeds by Time of Day.**

| | 7:00 AM | 7:15 AM | 7:30 AM | 7:45 AM | 8:00 AM | 8:15 AM | 8:30 AM | 8:45 AM | 9:00 AM | 9:15 AM | 9:30 AM | 9:45 AM | 2:15 PM | 2:30 PM | 2:45 PM | 3:00 PM | 3:15 PM | 3:30 PM | 3:45 PM | 4:00 PM | 4:15 PM | 4:30 PM | 4:45 PM | 5:00 PM | 5:15 PM | 5:30 PM | 5:45 PM | 6:00 PM | 6:15 PM | 6:30 PM | 6:45 PM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 125TH ST/EXIT 22 (off) | 75 | 75 | 75 | 75 | 74 | 74 | 74 | 74 | 74 | 73 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 75 | 74 | 74 | 74 | 75 | 75 | 75 | 75 | 75 | 75 | 74 | 74 | 74 | 74 |
| 125TH ST/EXIT 22 (on) | 75 | 75 | 75 | 75 | 74 | 74 | 74 | 74 | 73 | 73 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 75 | 74 | 74 | 74 | 75 | 75 | 76 | 76 | 75 | 75 | 74 | 74 | 74 | 74 |
| 101ST ST/EXIT 19 (off) | 76 | 75 | 75 | 75 | 75 | 74 | 74 | 74 | 74 | 73 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 75 | 74 | 74 | 74 | 74 | 75 | 75 | 75 | 75 | 75 | 74 | 74 | 74 | 74 |
| 101ST ST/EXIT 19 (on) | 76 | 75 | 76 | 75 | 75 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 75 | 74 | 74 | 74 | 75 | 75 | 76 | 75 | 76 | 74 | 75 | 75 | 75 |
| 85TH ST/EXIT 17 (off) | 74 | 74 | 74 | 74 | 73 | 73 | 73 | 73 | 73 | 72 | 73 | 72 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 74 | 74 | 74 | 74 | 73 | 73 | 73 | 73 |
| 85TH ST/EXIT 17 (on) | 75 | 75 | 75 | 75 | 74 | 73 | 74 | 74 | 73 | 73 | 73 | 73 | 73 | 74 | 73 | 74 | 74 | 74 | 74 | 73 | 73 | 74 | 74 | 75 | 75 | 75 | 75 | 74 | 74 | 74 | 74 |
| 77TH ST/EXIT 16 (off) | 73 | 73 | 73 | 74 | 73 | 73 | 72 | 73 | 73 | 72 | 72 | 72 | 72 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 74 | 74 | 74 | 74 | 73 | 73 | 73 | 73 |
| 77TH ST/EXIT 16 (on) | 73 | 73 | 74 | 74 | 73 | 73 | 73 | 73 | 73 | 72 | 72 | 72 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 74 | 74 | 74 | 74 | 73 | 73 | 73 | 73 |
| 61ST ST/EXIT 14 (off) | 66 | 67 | 66 | 67 | 67 | 67 | 66 | 66 | 66 | 66 | 65 | 65 | 66 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 68 | 68 | 67 | 68 | 68 |
| 61ST ST/EXIT 14 (on) | 70 | 70 | 70 | 71 | 70 | 70 | 70 | 70 | 70 | 70 | 69 | 69 | 70 | 70 | 70 | 70 | 71 | 71 | 71 | 70 | 70 | 71 | 71 | 71 | 71 | 71 | 71 | 71 | 70 | 71 | 71 |
| 53RD ST/EXIT 13 (off) | 64 | 64 | 64 | 64 | 64 | 64 | 63 | 63 | 62 | 62 | 61 | 61 | 62 | 63 | 63 | 63 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| 53RD ST/EXIT 13 (on) | 65 | 65 | 65 | 66 | 66 | 65 | 65 | 65 | 64 | 64 | 64 | 64 | 64 | 65 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 67 | 67 | 66 | 67 | 67 |
| I-235/KS-254/KS-96/EXIT 11 (off) | 56 | 55 | 54 | 53 | 54 | 55 | 55 | 55 | 54 | 54 | 54 | 54 | 56 | 56 | 56 | 57 | 57 | 56 | 56 | 56 | 57 | 56 | 57 | 57 | 57 | 57 | 58 | 58 | 58 | 58 | 58 |
| I-235/KS-254/KS-96/EXIT 11 (on) | 61 | 60 | 60 | 60 | 60 | 60 | 60 | 59 | 58 | 57 | 57 | 57 | 58 | 59 | 59 | 60 | 60 | 61 | 60 | 60 | 60 | 60 | 60 | 60 | 61 | 61 | 62 | 61 | 61 | 61 | 62 |
| HYDRAULIC ST/29TH ST/EXIT 10 (off) | 60 | 59 | 58 | 58 | 58 | 58 | 59 | 59 | 59 | 59 | 58 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 60 | 59 | 60 | 61 | 61 | 61 | 61 | 61 |
| HYDRAULIC ST/29TH ST/EXIT 10 (on) | 61 | 61 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 61 | 61 | 61 | 61 | 61 | 61 | 62 | 62 | 62 | 62 | 62 | 62 |
| KS-96/EXIT 10 (off) | 58 | 56 | 53 | 50 | 53 | 56 | 56 | 57 | 57 | 57 | 57 | 57 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 59 | 60 | 60 | 60 | 60 |
| KS-96/EXIT 10 (on) | 62 | 61 | 61 | 61 | 61 | 61 | 61 | 62 | 61 | 61 | 61 | 61 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 63 | 62 | 63 | 63 | 63 | 63 | 62 | 63 |
| 21ST ST/EXIT 9 | 61 | 61 | 60 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 62 | 61 | 61 | 62 | 62 | 63 | 63 | 63 | 63 | 63 | 63 |
| 13TH ST/E 8TH ST N/EXIT 8 | 61 | 61 | 60 | 60 | 61 | 60 | 60 | 61 | 61 | 60 | 61 | 61 | 60 | 60 | 60 | 60 | 61 | 60 | 60 | 61 | 60 | 60 | 60 | 59 | 59 | 61 | 61 | 62 | 61 | 62 | 62 |
| 9TH ST/EXIT 7 (off) | 61 | 60 | 58 | 57 | 59 | 59 | 59 | 59 | 60 | 60 | 60 | 60 | 60 | 60 | 59 | 60 | 60 | 59 | 58 | 59 | 58 | 57 | 57 | 55 | 55 | 59 | 60 | 61 | 60 | 61 | 61 |
| 9TH ST/EXIT 7 (on) | 61 | 60 | 59 | 58 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 61 | 60 | 60 | 60 | 60 | 60 | 59 | 59 | 60 | 59 | 58 | 58 | 57 | 57 | 60 | 60 | 61 | 61 | 61 | 61 |
| CENTRAL AVE/EXIT 7 (off) | 60 | 59 | 58 | 56 | 58 | 59 | 59 | 59 | 59 | 59 | 60 | 59 | 59 | 59 | 59 | 59 | 59 | 58 | 57 | 58 | 57 | 56 | 56 | 54 | 54 | 58 | 59 | 61 | 60 | 60 | 61 |
| CENTRAL AVE/EXIT 7 (south leg) | 60 | 60 | 58 | 57 | 59 | 59 | 59 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 59 | 59 | 59 | 59 | 58 | 59 | 58 | 56 | 57 | 55 | 54 | 58 | 60 | 61 | 61 | 61 | 62 |
| 2ND ST/EXIT 6 (off) | 60 | 60 | 59 | 57 | 59 | 59 | 59 | 59 | 60 | 60 | 60 | 60 | 60 | 60 | 59 | 60 | 60 | 58 | 57 | 59 | 58 | 56 | 56 | 56 | 53 | 58 | 60 | 62 | 61 | 61 | 62 |
| 2ND ST/EXIT 6 (south leg) | 60 | 60 | 59 | 57 | 59 | 59 | 60 | 59 | 60 | 60 | 60 | 60 | 60 | 60 | 59 | 60 | 59 | 59 | 58 | 59 | 58 | 57 | 57 | 56 | 54 | 58 | 60 | 61 | 61 | 61 | 62 |
| 1ST ST/EXIT 6 (north leg) | 60 | 60 | 59 | 56 | 58 | 59 | 59 | 59 | 60 | 60 | 60 | 60 | 60 | 59 | 59 | 59 | 59 | 58 | 55 | 58 | 57 | 56 | 55 | 56 | 50 | 57 | 60 | 62 | 61 | 61 | 62 |
| 1ST ST/EXIT 6 (on) | 60 | 59 | 58 | 55 | 58 | 58 | 59 | 59 | 59 | 59 | 60 | 59 | 59 | 59 | 59 | 59 | 59 | 57 | 53 | 58 | 57 | 55 | 54 | 55 | 48 | 56 | 60 | 61 | 61 | 61 | 61 |
| US-400/US-54/E KELLOGG DR/EXIT 5 (off) | 60 | 59 | 58 | 52 | 56 | 58 | 59 | 58 | 59 | 59 | 59 | 59 | 59 | 59 | 58 | 59 | 58 | 57 | 50 | 57 | 56 | 54 | 53 | 54 | 43 | 54 | 59 | 61 | 61 | 60 | 61 |
| US-400/US-54/E KELLOGG DR/EXIT 5 (on) | 62 | 62 | 61 | 62 | 61 | 61 | 62 | 61 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 61 | 62 | 61 | 61 | 61 | 61 | 60 | 62 | 63 | 63 | 62 | 62 | 62 |
| LINCOLN ST/EXIT 5 | 61 | 61 | 61 | 61 | 60 | 60 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 62 | 61 | 61 | 61 | 61 | 60 | 61 | 61 | 61 | 60 | 60 | 60 | 61 | 62 | 62 | 61 | 61 | 61 |
| HARRY ST/EXIT 4 | 62 | 62 | 62 | 61 | 61 | 61 | 61 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 61 | 61 | 61 | 62 | 62 | 62 | 62 | 62 | 63 |
| PAWNEE ST/EXIT 3 | 62 | 61 | 61 | 61 | 61 | 61 | 61 | 62 | 62 | 62 | 61 | 62 | 62 | 62 | 62 | 62 | 61 | 62 | 62 | 62 | 62 | 62 | 62 | 61 | 60 | 62 | 62 | 63 | 62 | 62 | 63 |
| KS-15/SOUTHEAST BLVD/EXIT 3 (off) | 59 | 58 | 58 | 58 | 58 | 58 | 58 | 59 | 59 | 59 | 59 | 59 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 59 | 58 | 60 | 60 | 61 | 61 | 61 | 61 |
| KS-15/SOUTHEAST BLVD/EXIT 3 (on) | 61 | 61 | 61 | 62 | 61 | 61 | 61 | 61 | 61 | 61 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 61 | 61 | 61 | 62 | 62 | 62 | 62 | 62 | 62 |
| HYDRAULIC ST/EXIT 2 (off) | 61 | 61 | 62 | 62 | 62 | 61 | 61 | 62 | 61 | 61 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 61 | 61 | 61 | 62 | 62 | 63 | 62 | 62 | 62 |
| HYDRAULIC ST/EXIT 2 (on) | 61 | 62 | 62 | 62 | 62 | 61 | 62 | 62 | 61 | 61 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 63 | 63 | 62 | 62 | 63 |
| I-235/EXIT 1 | 60 | 60 | 60 | 61 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 61 | 61 | 61 | 61 | 60 | 61 | 60 | 61 | 61 | 60 | 61 | 60 | 60 | 60 | 61 | 61 | 61 | 61 | 62 |

**Figure 17: I-135 Southbound Average Traffic Speeds by Time of Day.**

| | 7:00 AM | 7:15 AM | 7:30 AM | 7:45 AM | 8:00 AM | 8:15 AM | 8:30 AM | 8:45 AM | 9:00 AM | 9:15 AM | 9:30 AM | 9:45 AM | 2:15 PM | 2:30 PM | 2:45 PM | 3:00 PM | 3:15 PM | 3:30 PM | 3:45 PM | 4:00 PM | 4:15 PM | 4:30 PM | 4:45 PM | 5:00 PM | 5:15 PM | 5:30 PM | 5:45 PM | 6:00 PM | 6:15 PM | 6:30 PM | 6:45 PM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| I-235/EXIT 1 | 51 | 50 | 51 | 51 | 50 | 49 | 51 | 51 | 51 | 51 | 51 | 50 | 51 | 52 | 51 | 51 | 52 | 51 | 51 | 51 | 52 | 52 | 52 | 52 | 50 | 52 | 51 | 52 | 50 | 50 | 50 |
| I-135/EXIT 1 | 60 | 60 | 59 | 60 | 59 | 59 | 59 | 59 | 58 | 59 | 59 | 59 | 60 | 59 | 60 | 60 | 60 | 60 | 59 | 59 | 60 | 59 | 59 | 59 | 59 | 59 | 60 | 59 | 61 | 60 | 60 |
| MACARTHUR RD/EXIT 1 | 61 | 61 | 60 | 61 | 61 | 60 | 61 | 60 | 59 | 60 | 61 | 61 | 61 | 61 | 61 | 61 | 62 | 61 | 61 | 61 | 62 | 61 | 62 | 61 | 61 | 61 | 61 | 61 | 62 | 62 | 61 |
| SENECA ST/EXIT 2 | 64 | 64 | 63 | 64 | 64 | 63 | 63 | 63 | 62 | 63 | 64 | 63 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 65 | 64 | 64 | 64 | 64 | 64 | 65 | 64 | 65 | 64 | 65 |
| MERIDIAN AVE/EXIT 3 (off) | 65 | 65 | 64 | 65 | 65 | 64 | 65 | 64 | 64 | 64 | 65 | 65 | 65 | 65 | 65 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 65 | 65 | 65 | 65 | 66 | 66 | 66 | 65 | 66 |
| MERIDIAN AVE/EXIT 3 (on) | 65 | 65 | 64 | 65 | 65 | 64 | 65 | 65 | 64 | 64 | 65 | 65 | 65 | 65 | 65 | 66 | 66 | 65 | 66 | 66 | 66 | 66 | 65 | 66 | 65 | 66 | 66 | 66 | 66 | 65 | 65 |
| WEST ST/EXIT 4 (off) | 65 | 65 | 64 | 66 | 65 | 65 | 65 | 64 | 64 | 64 | 65 | 65 | 65 | 65 | 65 | 65 | 66 | 65 | 66 | 65 | 66 | 65 | 65 | 65 | 65 | 66 | 66 | 66 | 66 | 65 | 65 |
| WEST ST/EXIT 4 (on) | 65 | 66 | 65 | 66 | 66 | 65 | 65 | 65 | 64 | 65 | 65 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 65 | 66 | 66 | 66 | 67 | 66 | 66 | 66 | 66 |
| KS-42/SOUTHWEST BLVD/EXIT 5 (off) | 65 | 66 | 65 | 66 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 66 | 66 | 66 | 65 | 66 | 66 | 65 | 65 | 66 | 66 | 65 | 66 | 66 | 67 | 67 | 66 | 67 | 66 | 66 |
| KS-42/SOUTHWEST BLVD/EXIT 5 (on) | 66 | 66 | 66 | 66 | 66 | 66 | 65 | 66 | 65 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 65 | 65 | 66 | 65 | 65 | 65 | 65 | 66 | 66 | 66 | 67 | 67 | 67 |
| US-400/US-54/W KELLOGG DR/EXIT 7 (on) | 66 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 64 | 64 | 64 | 64 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 66 | 66 | 66 | 66 | 66 |
| US-400/US-54/W KELLOGG DR/EXIT 7 (off) | 65 | 65 | 65 | 65 | 64 | 64 | 64 | 65 | 64 | 65 | 64 | 64 | 65 | 65 | 65 | 65 | 66 | 66 | 66 | 65 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 65 | 65 | 65 | 65 |
| CENTRAL AVE/EXIT 8 (off) | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 63 | 63 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 63 | 63 | 62 | 63 | 63 | 64 | 64 | 64 | 63 |
| CENTRAL AVE/EXIT 8 (on) | 66 | 66 | 65 | 65 | 64 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 66 | 65 | 65 | 66 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 63 | 65 | 66 | 66 | 66 | 66 | 66 |
| ZOO BLVD/EXIT 10 (off) | 64 | 64 | 64 | 63 | 64 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 64 | 64 | 64 | 64 | 64 | 64 | 63 | 63 | 63 | 62 | 63 | 62 | 64 | 63 | 63 | 63 |
| ZOO BLVD/EXIT 10 (on) | 66 | 66 | 66 | 66 | 66 | 65 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 |
| 25TH ST/EXIT 11 (off) | 66 | 67 | 67 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 67 | 67 | 67 | 66 | 67 | 67 | 67 | 67 | 67 | 67 | 68 | 68 | 67 | 68 | 67 | 67 | 67 | 67 | 67 |
| 25TH ST/EXIT 11 (off) | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 66 | 66 | 66 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 |
| KS-96/EXIT 13 (off) | 67 | 67 | 66 | 65 | 67 | 66 | 66 | 67 | 66 | 66 | 66 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 68 | 68 | 68 | 68 | 68 | 68 | 67 | 68 | 68 | 68 | 68 | 68 | 68 |
| KS-96/EXIT 13 (on) | 67 | 67 | 67 | 67 | 67 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 68 | 67 | 68 | 67 | 68 | 68 | 68 | 68 | 68 | 67 |
| BROADWAY ST/EXIT 15 (off) | 65 | 63 | 54 | 48 | 61 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 65 | 64 | 64 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 |
| BROADWAY ST/EXIT 15 (on) | 64 | 60 | 45 | 34 | 54 | 61 | 62 | 63 | 63 | 62 | 62 | 62 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 65 | 64 | 64 | 64 | 65 | 65 | 65 | 64 | 65 | 65 | 65 | 65 |
| I-135 (off) | 59 | 54 | 43 | 35 | 47 | 56 | 57 | 57 | 58 | 57 | 57 | 57 | 59 | 59 | 59 | 59 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 61 | 60 | 61 | 61 | 61 | 61 | 61 | 62 |
| I-135 (on) | 58 | 55 | 53 | 50 | 53 | 56 | 56 | 55 | 56 | 55 | 55 | 55 | 56 | 57 | 56 | 58 | 58 | 58 | 58 | 59 | 56 | 58 | 59 | 59 | 59 | 59 | 59 | 58 | 59 | 59 | 59 |

**Figure 18: I-235 Northbound Average Traffic Speeds by Time of Day.**

| | 7:00 AM | 7:15 AM | 7:30 AM | 7:45 AM | 8:00 AM | 8:15 AM | 8:30 AM | 8:45 AM | 9:00 AM | 9:15 AM | 9:30 AM | 9:45 AM | 2:15 PM | 2:30 PM | 2:45 PM | 3:00 PM | 3:15 PM | 3:30 PM | 3:45 PM | 4:00 PM | 4:15 PM | 4:30 PM | 4:45 PM | 5:00 PM | 5:15 PM | 5:30 PM | 5:45 PM | 6:00 PM | 6:15 PM | 6:30 PM | 6:45 PM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BROADWAY ST/EXIT 15 (off) | 60 | 60 | 60 | 59 | 58 | 59 | 59 | 59 | 58 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 59 | 58 | 58 | 58 | 58 | 58 | 58 | 57 | 58 | 60 | 61 | 61 | 61 | 61 |
| BROADWAY ST/EXIT 15 (on) | 64 | 63 | 64 | 64 | 63 | 63 | 63 | 63 | 62 | 62 | 63 | 63 | 63 | 63 | 63 | 63 | 64 | 64 | 63 | 63 | 63 | 63 | 62 | 62 | 61 | 62 | 64 | 65 | 64 | 65 | 65 |
| KS-96/EXIT 13 (off) | 64 | 64 | 64 | 64 | 63 | 64 | 63 | 63 | 62 | 63 | 63 | 63 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 63 | 63 | 62 | 63 | 65 | 65 | 65 | 65 | 66 |
| KS-96/EXIT 13 (on) | 65 | 66 | 65 | 66 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 66 | 65 | 65 | 65 | 65 | 65 | 66 | 65 | 65 | 65 | 65 | 64 | 64 | 64 | 64 | 65 | 67 | 66 | 66 | 66 |
| 25TH ST/EXIT 11 (off) | 67 | 67 | 67 | 67 | 66 | 66 | 66 | 66 | 65 | 65 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 |
| 25TH ST/EXIT 11 (on) | 67 | 68 | 67 | 68 | 67 | 67 | 67 | 67 | 66 | 66 | 66 | 67 | 67 | 66 | 66 | 67 | 66 | 66 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 | 67 |
| ZOO BLVD/EXIT 10 (off) | 66 | 65 | 65 | 65 | 64 | 64 | 64 | 64 | 64 | 63 | 63 | 63 | 63 | 63 | 63 | 64 | 64 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 62 | 63 | 62 | 62 | 62 |
| ZOO BLVD/EXIT 10 (on) | 66 | 66 | 65 | 66 | 66 | 66 | 66 | 66 | 66 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 66 | 65 | 65 | 65 | 65 | 65 | 65 | 64 | 63 | 64 | 65 | 66 | 66 | 66 | 66 |
| CENTRAL AVE/EXIT 8 (off) | 65 | 66 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 64 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 64 | 65 | 64 | 64 | 64 | 64 | 62 | 64 | 64 | 65 | 65 | 65 | 65 |
| CENTRAL AVE/EXIT 8 (on) | 66 | 66 | 65 | 65 | 65 | 66 | 65 | 66 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 66 | 66 | 65 | 66 | 66 | 65 | 66 | 65 | 66 |
| US-400/US-54/W KELLOGG DR/EXIT 7 (off) | 65 | 65 | 64 | 63 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 65 | 64 | 64 | 65 | 64 | 65 |
| US-400/US-54/W KELLOGG DR/EXIT 7 (on) | 65 | 66 | 66 | 66 | 65 | 65 | 65 | 65 | 65 | 64 | 64 | 65 | 65 | 65 | 65 | 65 | 66 | 65 | 65 | 65 | 66 | 66 | 66 | 66 | 66 | 66 | 65 | 65 | 66 | 66 | 66 |
| KS-42/SOUTHWEST BLVD/EXIT 5 | 64 | 63 | 63 | 61 | 63 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 63 | 64 | 64 | 64 | 65 | 64 | 64 | 65 | 65 | 64 | 65 | 65 | 65 | 65 | 65 | 65 | 66 | 66 | 66 |
| WEST ST/EXIT 4 (off) | 64 | 65 | 66 | 65 | 64 | 64 | 64 | 65 | 64 | 64 | 65 | 64 | 65 | 64 | 64 | 65 | 65 | 64 | 64 | 64 | 65 | 64 | 64 | 63 | 63 | 63 | 63 | 65 | 64 | 65 | 64 |
| WEST ST/EXIT 4 (on) | 67 | 67 | 67 | 67 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 67 | 67 | 67 | 66 | 66 | 66 | 67 | 67 | 67 | 67 | 67 | 66 | 67 | 67 | 67 | 67 | 67 |
| MERIDIAN AVE/EXIT 3 (off) | 63 | 64 | 65 | 64 | 64 | 63 | 63 | 64 | 64 | 64 | 63 | 64 | 65 | 63 | 64 | 64 | 64 | 63 | 64 | 64 | 64 | 65 | 64 | 63 | 63 | 63 | 63 | 64 | 63 | 64 | 64 |
| MERIDIAN AVE/EXIT 3 (on) | 64 | 64 | 65 | 64 | 63 | 63 | 63 | 64 | 64 | 64 | 64 | 64 | 65 | 64 | 64 | 64 | 64 | 63 | 64 | 64 | 64 | 65 | 64 | 63 | 62 | 63 | 63 | 64 | 63 | 63 | 64 |
| SENECA ST/EXIT 2 (off) | 64 | 65 | 65 | 65 | 64 | 63 | 63 | 64 | 64 | 63 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 63 | 64 | 64 | 64 | 65 | 64 | 63 | 63 | 63 | 62 | 64 | 63 | 64 | 64 |
| SENECA ST/EXIT 2 (on) | 64 | 65 | 65 | 65 | 64 | 64 | 64 | 65 | 64 | 64 | 64 | 64 | 65 | 64 | 64 | 64 | 64 | 63 | 64 | 64 | 65 | 65 | 65 | 63 | 63 | 63 | 63 | 64 | 63 | 64 | 64 |
| MACARTHUR RD/EXIT 1 | 63 | 64 | 64 | 64 | 63 | 62 | 62 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 64 | 62 | 63 | 63 | 63 | 64 | 63 | 63 | 62 | 62 | 62 | 63 | 63 | 63 | 63 |
| I-135/EXIT 1 (off) | 59 | 60 | 59 | 59 | 59 | 58 | 59 | 59 | 59 | 58 | 59 | 59 | 59 | 59 | 59 | 60 | 59 | 59 | 59 | 59 | 60 | 59 | 60 | 59 | 59 | 59 | 59 | 60 | 60 | 60 | 60 |
| I-135/EXIT 1 (on) | 60 | 62 | 61 | 62 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 61 | 61 | 60 | 60 | 61 | 61 | 60 | 60 | 60 | 61 | 61 | 61 | 61 | 60 | 60 | 60 | 61 | 61 | 61 | 61 |
| 47TH ST/EXIT 1 | 51 | 52 | 51 | 50 | 51 | 51 | 51 | 50 | 50 | 50 | 50 | 50 | 51 | 52 | 51 | 51 | 51 | 50 | 51 | 51 | 51 | 51 | 51 | 51 | 50 | 52 | 52 | 52 | 53 | 52 | 53 |

**Figure 19: I-235 Southbound Average Traffic Speeds by Time of Day.**