COMPASS
COMMUNITY PLANNING ASSOCIATION
of Southwest Idaho

Working together to plan for the future

Treasure Valley Annual Congestion Management System Report, 2018

04-2020

November 2019

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Background and Introduction

What is the Congestion Management Process?

The congestion management process (CMP) is a systematic approach for analyzing, identifying, monitoring, and managing congestion. The congestion management annual report uses data to show trends in congestion, measure progress toward meeting congestion-related performance measures, and recommend strategies to mitigate congestion in Ada and Canyon Counties, Idaho – the Treasure Valley. These two counties comprise the planning area for the region's metropolitan planning organization, the Community Planning Association of Southwest Idaho (COMPASS). A CMP is federally required for areas with populations exceeding 200,000, known as Transportation Management Areas. While only a portion of COMPASS' planning area is subject to this requirement (the Boise Urbanized Area), COMPASS' CMP covers its entire planning area.

The CMP is used as a tool to identify congestion mitigation needs and support the development of COMPASS' long-range transportation plan, *Communities in Motion*, and its Regional Transportation Improvement Program (TIP). The process identifies measures and targets for monitoring progress toward mitigating congestion, as well as management strategies to reduce congestion on the transportation system. The *Treasure Valley Congestion Management System Plan,* adopted by COMPASS in 2005, details how COMPASS implements the congestion management process, including the travel time data collection process, use of the data, specific definitions of congestion, and a "toolbox" of mitigation strategies. The plan is available at www.compassidaho.org/documents/prodserv/reports/TreasureValleyCMSFinal.pdf.

What is Congestion?

Congestion occurs when a roadway has reached its capacity or incurs a temporary reduction in capacity resulting in slower travel times. There are two types of congestion: recurring and non-recurring. Recurring congestion is caused by predictable day-to-day traffic patterns and is usually the result of insufficient capacity and high demands on the transportation system. Recurring congestion most often occurs during morning and evening commute periods. Non-recurring congestion is temporary and often unpredictable. Non-recurring congestion is often caused by road construction, traffic accidents, inclement weather, special events, and emergencies.

Growth Measures

Growth in the Treasure Valley

The Treasure Valley continues to grow. COMPASS estimates population on a yearly basis for cities and counties in its planning area. From 2010 through 2018, the population grew by 16% (Figure 1). This increase in population has created additional demand on the transportation system, which is one of the causes of congestion. COMPASS and its member agencies are planning for growth and identifying, prioritizing, and securing funding for transportation projects to manage demand and mitigate congestion.

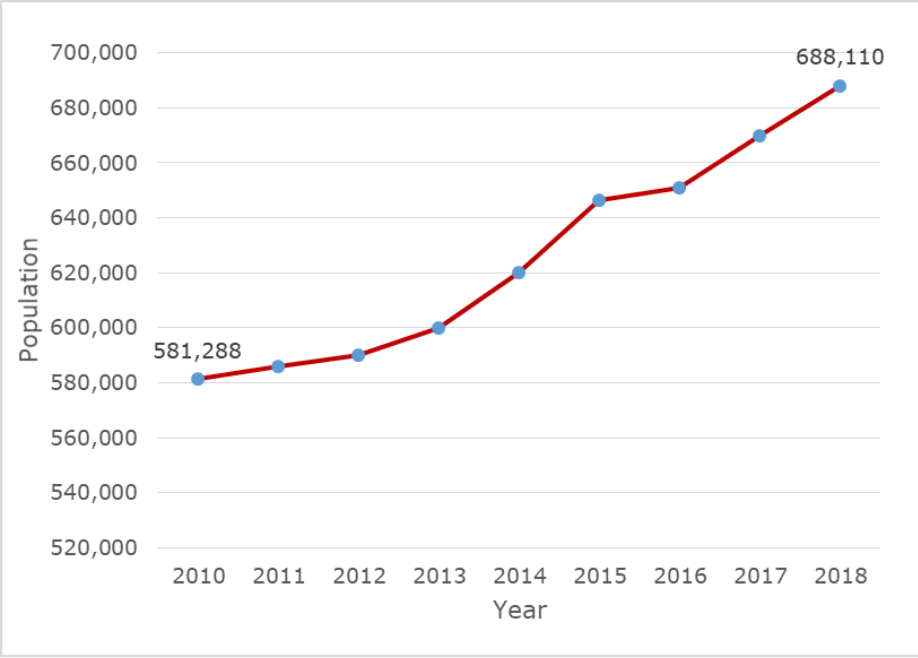

Figure 1: Ada and Canyon Counties Population (2010 – 2018)

Development and Congestion

Increases in population and development activity can impact travel patterns and performance of the transportation system. Development activity has increased steadily from 2011 through 2018 in Ada and Canyon Counties (Figure 2). Identifying locations with high concentrations of development activity can help identify which corridors in the area might experience the most change in traffic volumes and congestion due to new construction (Figures 3 – 5). This information can also help to identify appropriate locations for congestion mitigation strategies, such as providing public transportation services on corridors with concentrations of multi-family unit development or operational improvements on corridors with single-family home development.

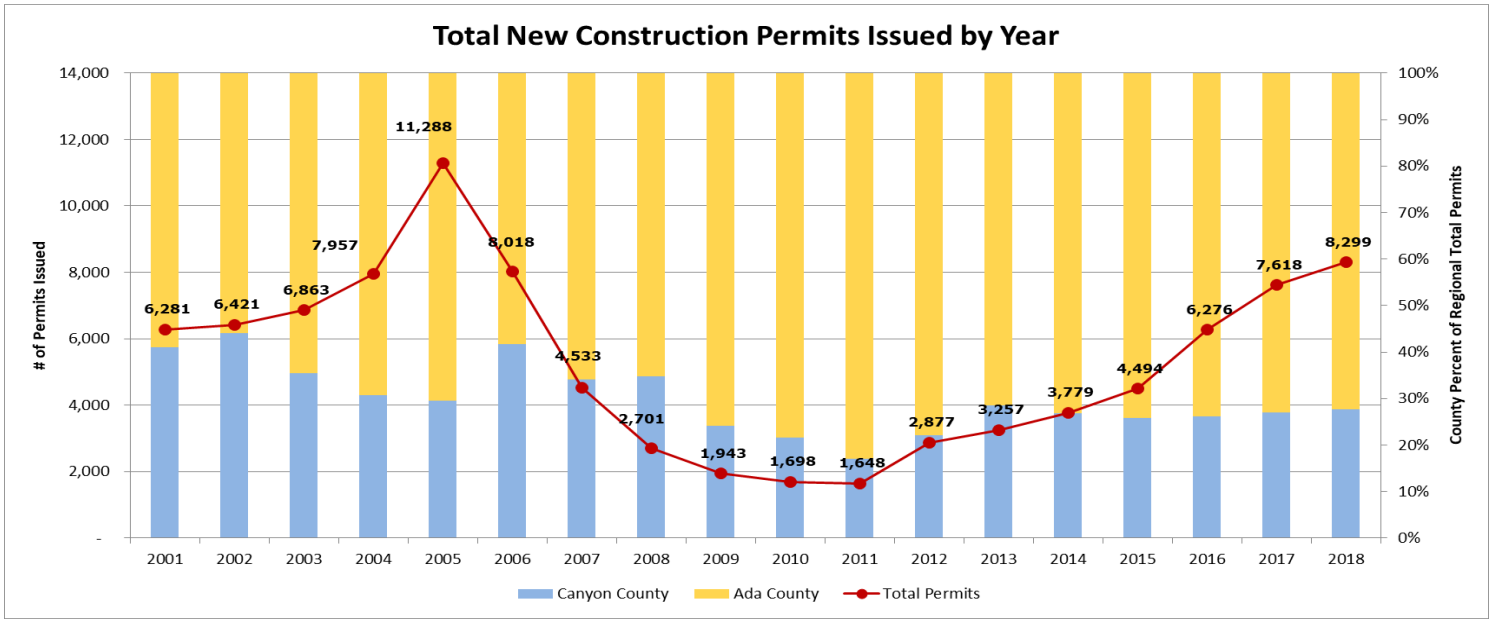

Figure 2: Total New Construction Permits Issued by Year (2001 – 2018)

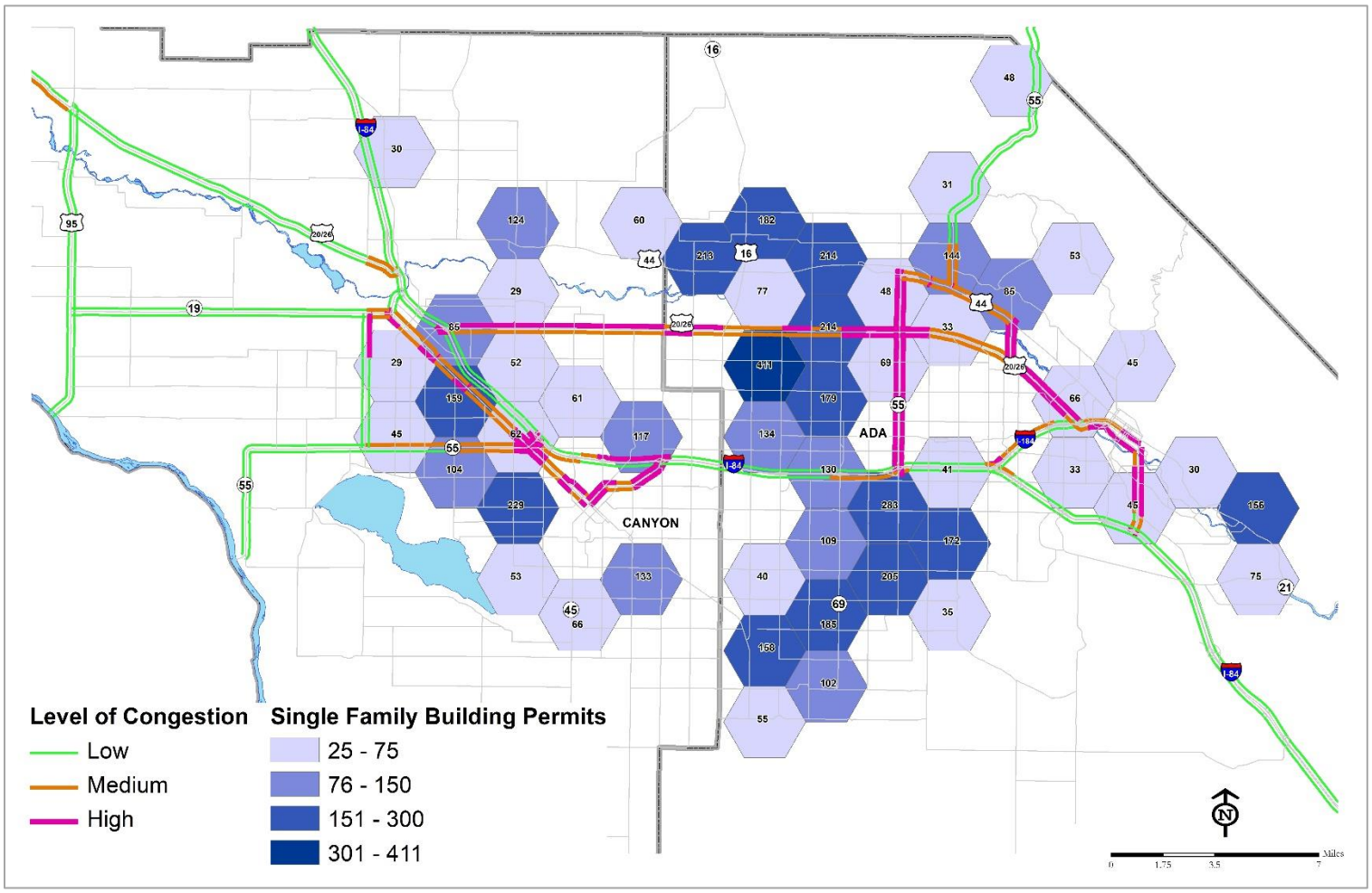

Figure 3: Single Family Building Permit Activity and Levels of Highest Peak Hour Congestion (2018)

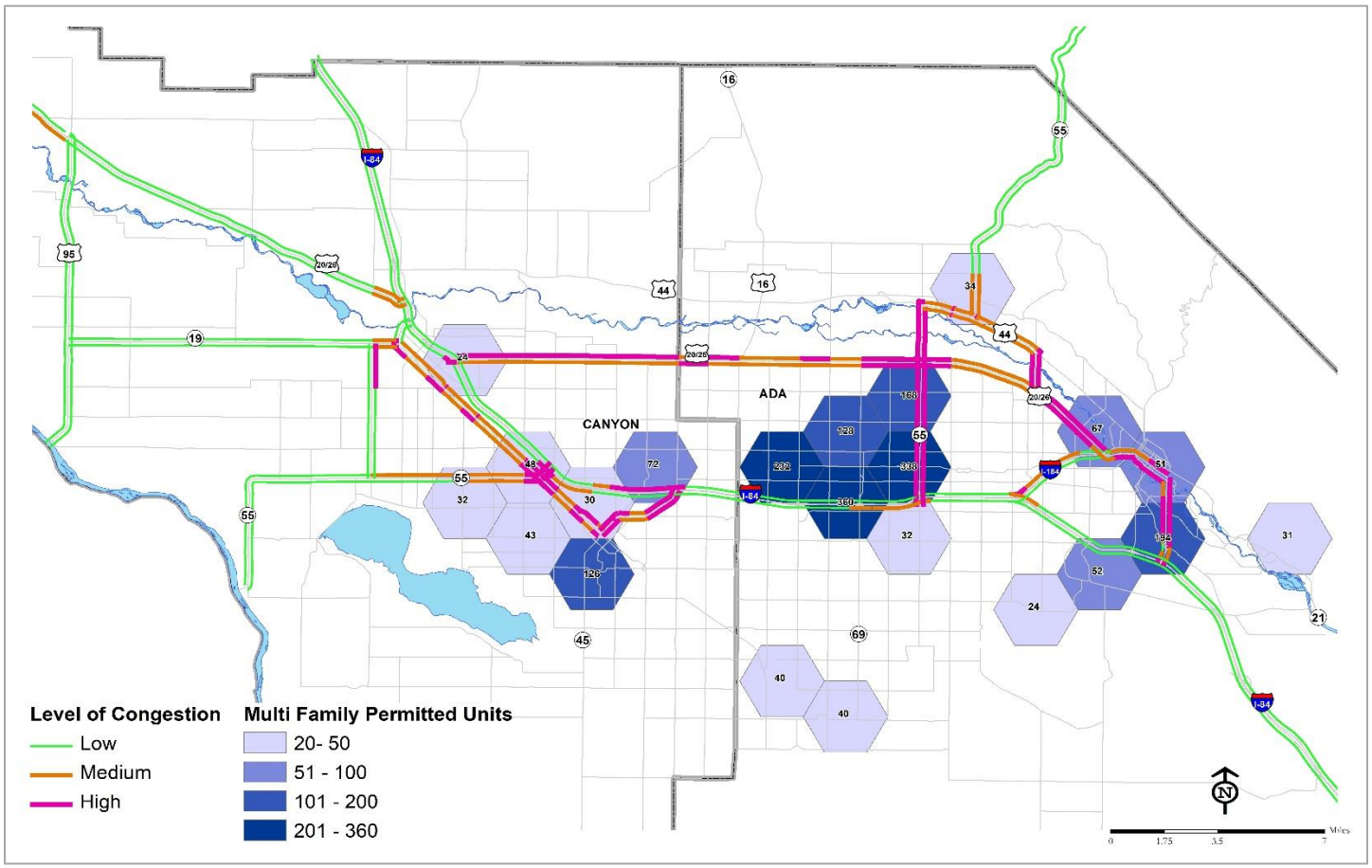

Figure 4: Multi-Family Building Permit Activity and Levels of Highest Peak Hour Congestion (2018)

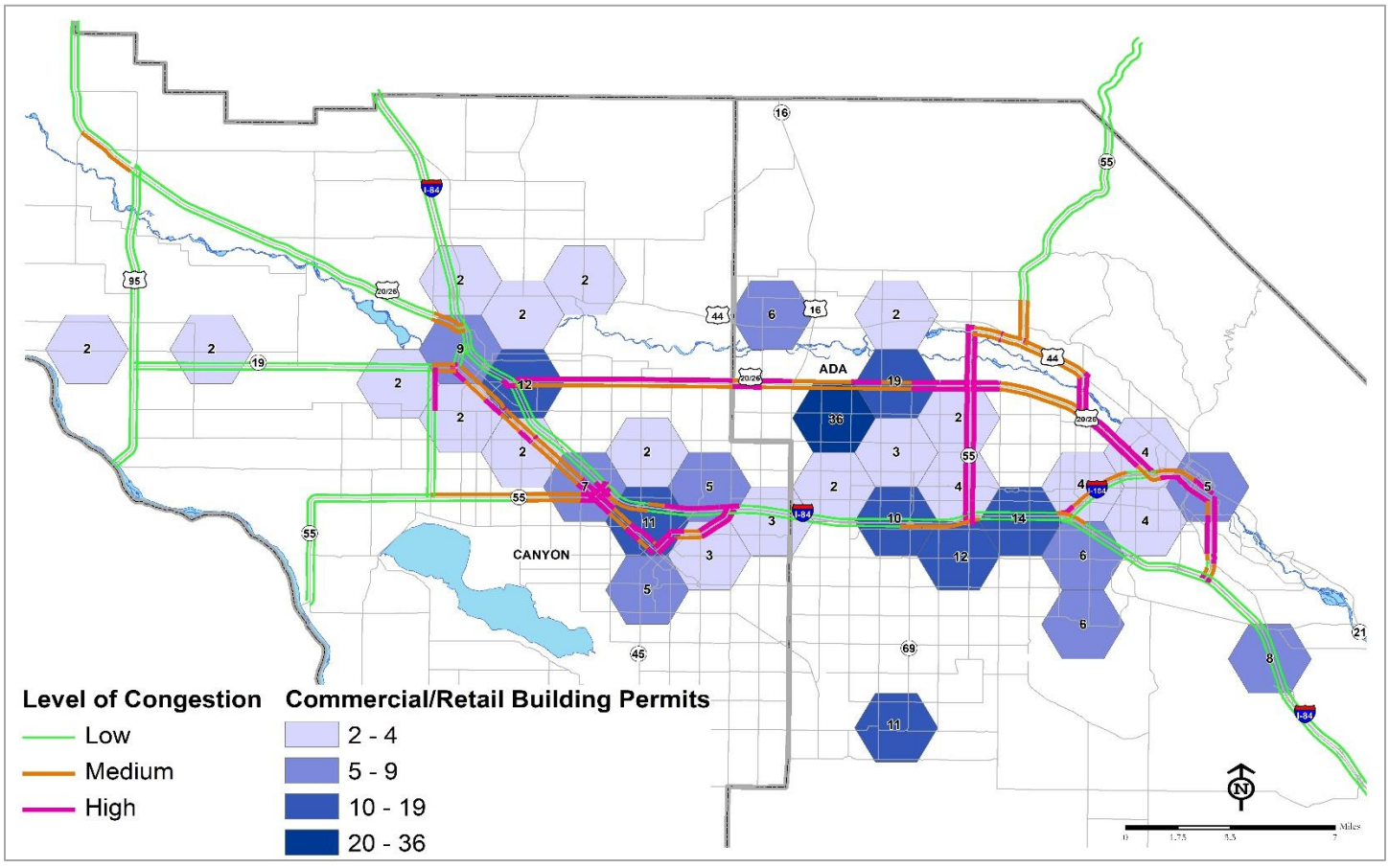

Figure 5: Commercial/Retail Building Permit Activity and Levels of Highest Peak Hour Congestion (2018)

Travel Time Data

COMPASS uses the National Performance Management Research Data Set (NPMRDS) to analyze and identify congestion. The NPMRDS is a vehicle probe-based speed and travel time data set that covers portions of the National Highway System. The Congestion Management Plan and annual reports refer to this as the Tier 1 network. It is procured by the Federal Highway Administration and made available to state and local governments to assist with performance measure reporting. The dataset is composed of travel time records averaged in five-minute intervals for segments of road, or "Traffic Message Channels," on the National Highway System collected from millions of connected vehicles, trucks, and mobile devices that supply location and movement data. The NPMRDS is the primary source for travel time data used in this report and is used to calculate system reliability, Travel Time Index, and commute travel times on the Tier 1 network. An appendix is included at the end of this report (pg. 18) that includes corridor level analysis of average speeds, traffic volumes, and causes of congestion.

Travel Time Index (TTI)

TTI is the ratio of the ideal free flow travel time to the actual measured travel time. For example, a TTI value of 3 means that it take three times longer to drive a segment at a particular time than it would under free-flow conditions. TTI is a good measure to show the severity of congestion on the transportation system and how congestion impacts travel times. COMPASS uses the TTI to classify roadway segments into high, medium, and low levels of congestion (Table 1). TTI is averaged for morning (6am-9am), midday (9am-3pm), evening (3pm-7pm), and weekend (6am-8pm) peak periods; the highest TTI value for each roadway segment is used to designate the level of congestion for that segment. The percentage of miles of highly congested roadway segments decreased by nearly 6% between 2017 and 2018 (Table 2). Numbers may vary slightly from previous reports due to data quality improvements made by the travel time data vendor.

Table 1: Travel Time Index Thresholds

High	Medium	Low
TTI > 2.0	TTI 1.5 – 2.0	TTI < 1.5

Table 2: Tier 1 Network Congestion Summary, Based on Max Average TTI Thresholds for CMP Time periods

Year	High		Medium		Low		Total Miles
	Miles	Percent	Miles	Percent	Miles	Percent	
2014	92.5	33.3%	40.2	14.5%	145.4	52.3%	**278.2**
2015	135.1	36.7%	56.3	15.3%	176.3	47.9%	**367.7**
2016	138.1	37.6%	39.6	10.8%	190.0	51.7%	**367.7**
2017	87.7	23.8%	72.2	19.6%	208.6	56.6%	**368.6**
2018	64.8	17.6%	71.2	19.3%	232.7	63.1%	**368.6**

A survey of the ten most congested roadway segments shows that the worst congestion in the valley in 2018 was concentrated along US 20/26 (Chinden Boulevard) near downtown Boise and State Highway 55 (Eagle Road), around the City of Nampa on Nampa/Caldwell Boulevard, and on State Highway 55 (Eagle Road) near the I-84 interchange (Table 3 and Figure 6).

Table 3: Ten Most Congested Tier 1 Network Segments > 0.5 miles (2018)

Rank	Road	Description	Miles	Direction	TTI	Peak Period (maximum)
1	US 20/26 (Chinden Blvd)	Cloverdale Rd to SH 55 (Eagle Rd)	0.96	Westbound	3.95	PM
2	Karcher Rd	Middleton Rd to Nampa/Caldwell Blvd	0.52	Eastbound	3.84	PM
3	Nampa/Caldwell Blvd	Middleton Rd to SH 55 (Karcher Rd)	0.67	Eastbound	3.48	PM
4	US 20/26 (Front St)	Broadway Ave to Capitol Blvd	0.64	Westbound	3.41	PM
5	Nampa/Caldwell Blvd	Orchard Ave to Northside Blvd	0.53	Eastbound	3.36	PM
6	SH 55 (Eagle Rd)	Franklin Rd to I-84 Westbound On Ramp	0.51	Southbound	3.34	PM
7	US 20/26 (Chinden Blvd)	Orchard St to Curtis Rd	0.61	Westbound	3.16	PM
8	SH 55 (Eagle Rd)	Fairview Ave to Franklin Rd	1.00	Southbound	3.13	PM
9	US 20/26 (Broadway Ave)	Beacon St to Morrison Knudson Dr	0.66	Northbound	3.07	PM
10	Garrity Blvd	Kings Rd to I-84 Eastbound On Ramp	1.15	Eastbound	3.01	AM

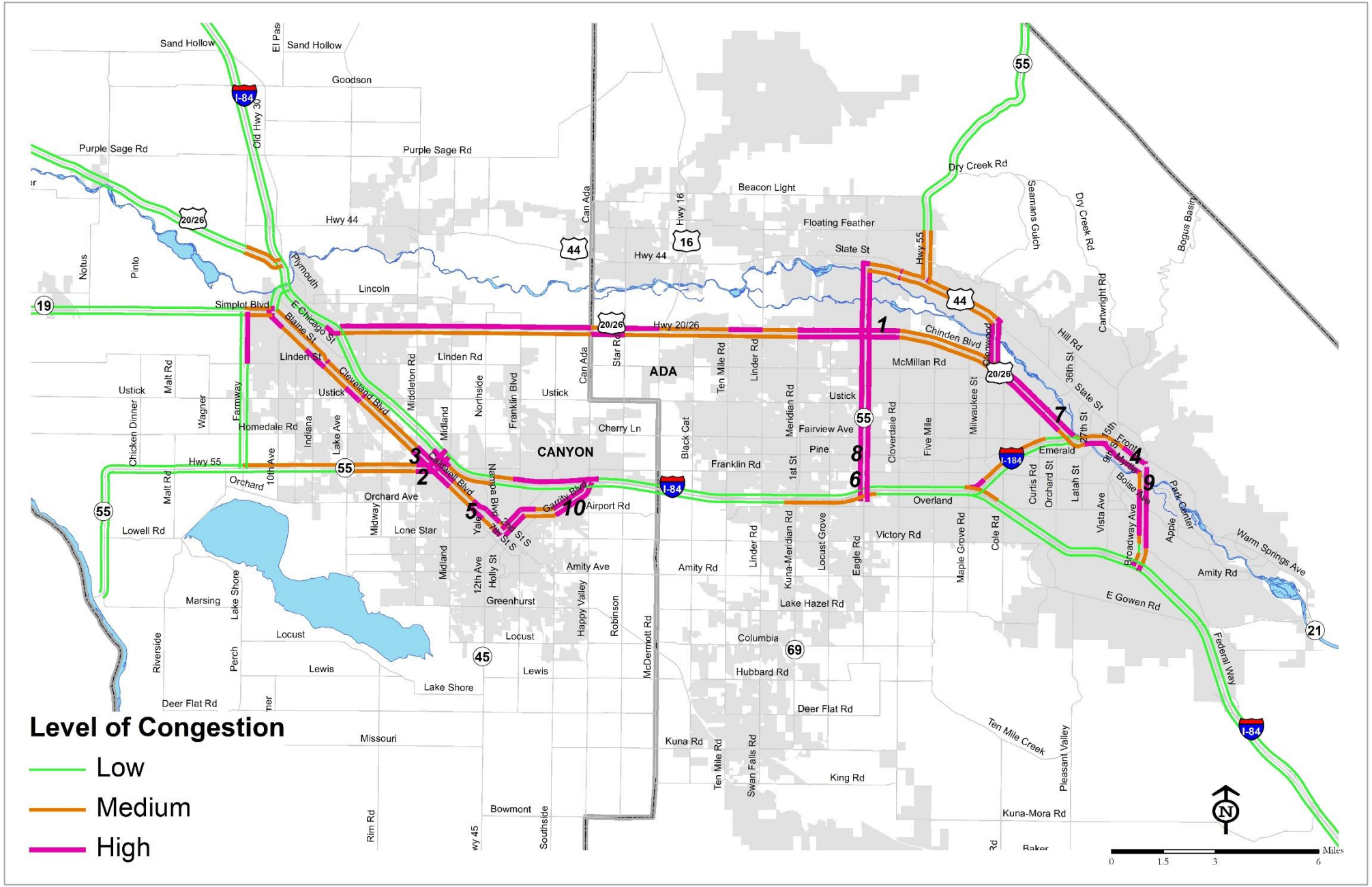

Figure 6: Top Ten Congested Tier 1 Network Segments > 0.5 miles (Peak period maximum, 2018)

Tier 2 Supplemental Travel Time Data and Analysis

When resources are available, COMPASS purchases additional travel time data to supplement the NPMRDS. This was the case for 2018. These additional data cover arterials and other major roadways that are not included in the NPMRDS. This additional network of roadways is called the Tier 2 network in the CMP. The same methodology (Travel Time Index) that is used to analyze congestion using the NPMRDS was applied to the Tier 2 travel time data set (Tables 4, 5, and 6; Figures 7 and 8). Some of the segments on the Tier 2 network are low volume; as a result, recorded actual travel times for the entire year are not available. The data vendor uses imputed data, calculated by using historic averages or free flow speeds to fill these voids in the dataset. However, the analysis and calculations of travel time use only records where actual recorded travel times are available.

Table 4: Tier 2 Network Congestion Summary, Based on Weekday Average TTI Thresholds

Year	High		Medium		Low		Not Included*		Total Miles
	Miles	Percent	Miles	Percent	Miles	Percent	Miles	Percent	
2018	7.22	0.7%	46.74	4.3%	926.50	85.3%	105.61	9.7%	1,086.07

*Not provided in the 2018 data set or excluded from the analysis because of limited actual recorded travel time data.

Table 5: Top Ten Congested Tier 2 Network Segments in Canyon County > 0.1 Miles (2018)

Rank	Road	Description	Miles	Direction	TTI	Peak Period (maximum)
1[1]	I-84 On Ramp (Old Highway 30)	I-84 On Ramp at Exit 26 (Old Highway 30)	0.21	Westbound	5.26	AM
2	I-84 On Ramp (Karcher Rd)	I-84 On Ramp at Exit 33 (Karcher Rd)	0.15	Eastbound	2.56	AM
3	I-84 Off Ramp (Garrity Blvd)	I-84 Off Ramp at Exit 38 (Garrity Blvd)	0.29	Westbound	2.27	PM
4	E Amity Rd	E Amity Rd and S Robinson Blvd	0.25	Westbound	2.12	PM
5	Franklin Rd	Franklin Rd and US 20/26 (Chinden Blvd)	0.50	Northbound	2.10	AM
6	I-84 On Ramp (Centennial Way)	I-84 On Ramp at Exit 27 (Centennial Way)	0.22	Westbound	2.00	PM
7	N Can Ada Rd	N Can Ada Rd at US 20/26 (Chinden Blvd)	0.51	Southbound	1.88	PM
8	Middleton Rd	Middleton Rd at Linden Rd	0.20	Southbound	1.77	PM
9	Karcher Rd	Karcher Rd at Midland Blvd	0.61	Westbound	1.77	Weekend
10	Middleton Rd	Middleton Rd at Ustick Rd	0.61	Southbound	1.77	PM

[1] The high TTI on this segment is likely due to low travel speeds recorded for commercial freight vehicles merging onto the interstate

Table 6: Top Ten Congested Tier 2 Network Segments in Ada County > 0.1 Miles (2018)

Rank	Road	Description	Miles	Direction	TTI	Peak Period (maximum)
1	Franklin Rd	Franklin Rd at SH 55 (Eagle Rd)	0.33	Westbound	3.32	PM
2	I-184 Off Ramp (Franklin Rd)	I-184 Off Ramp (Franklin Rd)	0.14	Northbound	2.59	PM
3	State St (SH 44)	State St (SH 44) at 36th St	0.11	Westbound	2.46	PM
4	I-84 Off Ramp (Orchard St)	I-84 Off Ramp at Exit 52 (Orchard St)	0.12	Eastbound	2.34	PM
5	I-84 On Ramp (Meridian Rd)	I-84 On Ramp at Exit 44 (Meridian Rd)	0.28	Eastbound	2.24	AM
6	W River St	9th St to Capitol Blvd	0.14	Southeast	2.12	PM
7	I-184 Off Ramp (Curtis Rd)	I-184 Off Ramp at Exit 2 (Curtis Rd)	0.14	Eastbound	2.12	PM
8	State St (SH 44)	State St (SH 44) at 36th St	0.56	Eastbound	2.07	Afternoon
9	Maple Grove Rd	Maple Grove Rd at Fairview Ave	0.29	Northbound	2.00	PM
10	S Eagle Rd (SH 55)	S Eagle Rd (SH 55) at Overland Rd	0.13	Southbound	1.98	PM

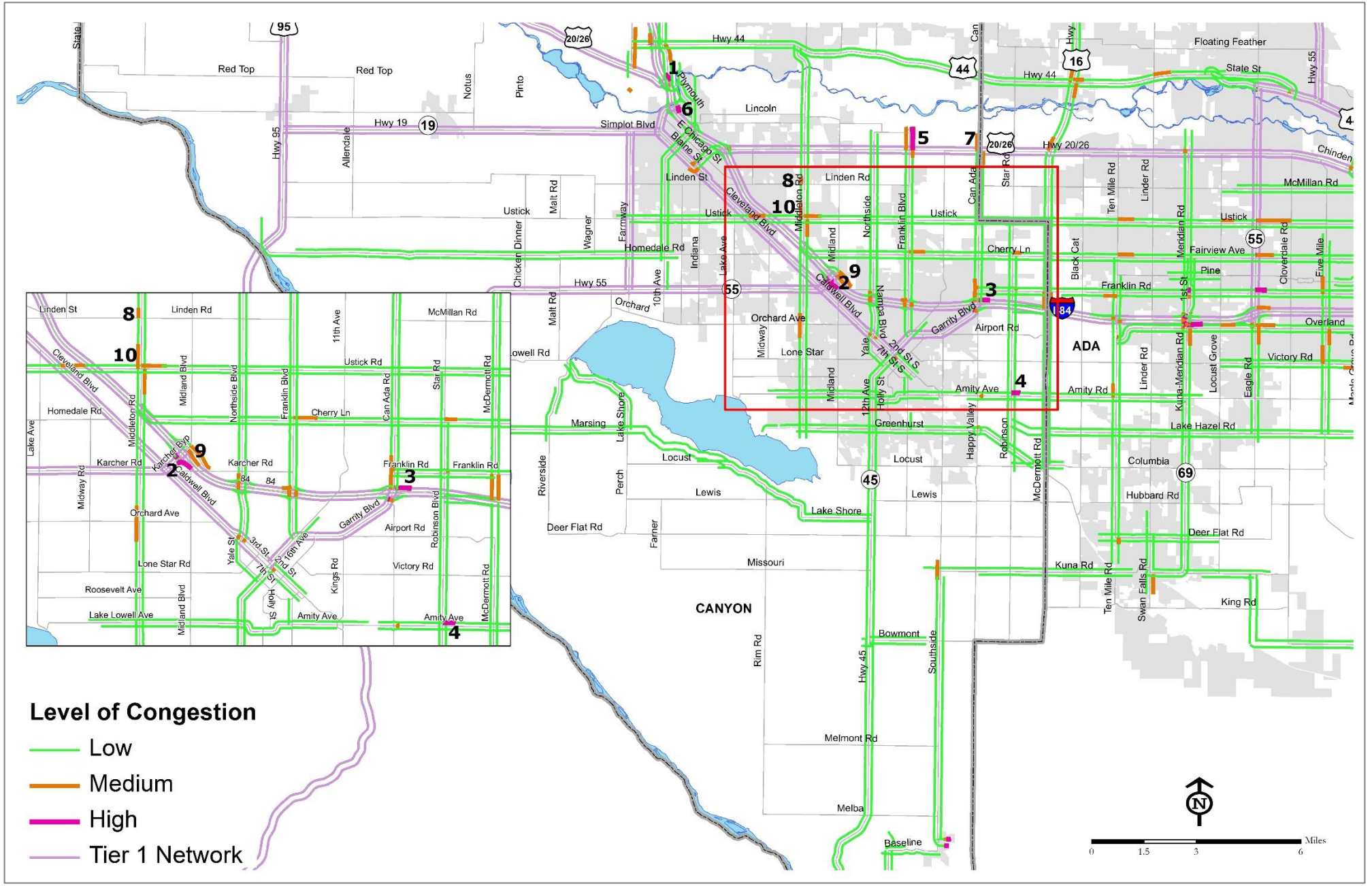

Figure 7: Top Ten Tier 2 Congested Roadways > 0.1 miles in Canyon County (Peak period maximum, 2018)

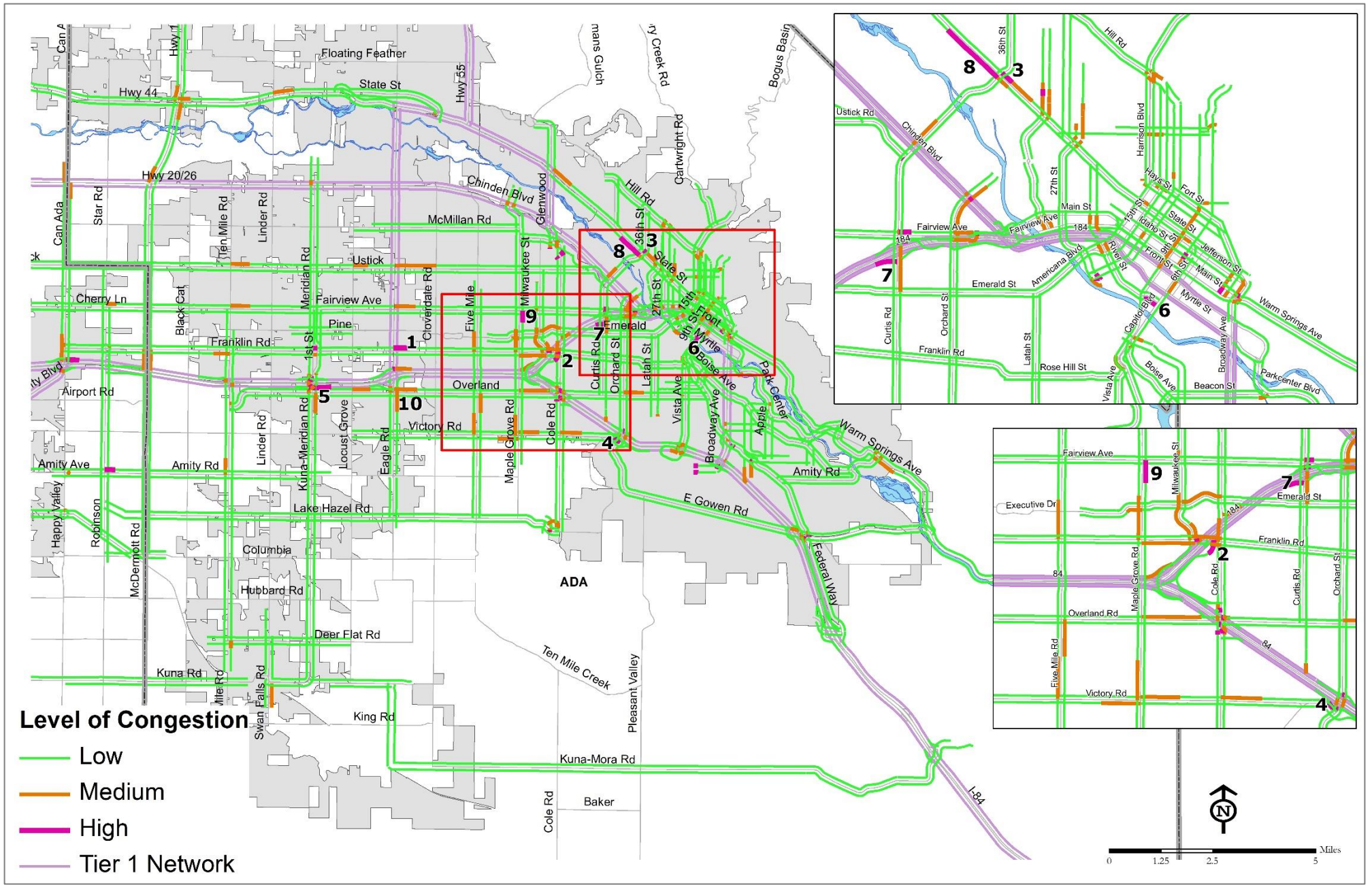

Figure 8: Top Ten Tier 2 Network Segments > 0.1 miles in Ada County (Peak period maximum, 2018)

Peak Hour Commute Times in the Treasure Valley

Recurring congestion in the Treasure Valley occurs primarily during the morning (AM) and evening (PM) commute times. Depending on the route, travelers can expect to add a significant amount of time to their commute due to congestion (Figure 9). In Figure 9, the free flow travel time is show in green, the travel time added to the commute due to congestion is shown in yellow, and the total average weekday commute (free flow + congested travel time) is displayed in black bold font. For example, under free flow conditions the travel time from Caldwell to Boise on I-84 takes around 23 minutes; during the morning commute over 7 minutes are added to the travel time, for an average weekday morning commute travel time of about 30 minutes.

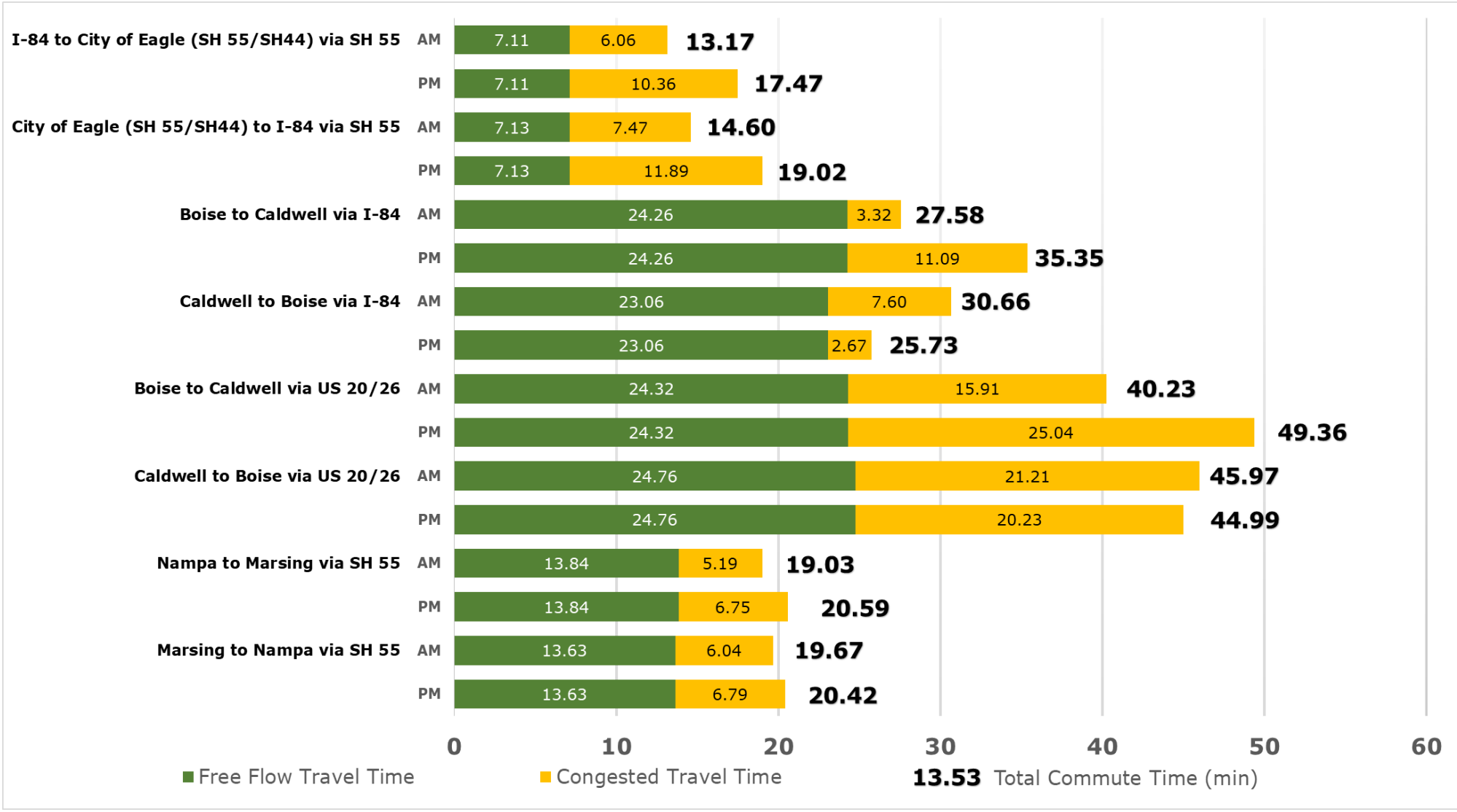

Figure 9: Average Weekday AM and PM Peak Period Commute Travel Times for Select Routes in the Treasure Valley (2018)

Federal System Performance Measures

The Moving Ahead for Progress in the 21st Century Act (MAP-21), signed in 2012, includes provisions requiring state transportation agencies and metropolitan planning organizations such as COMPASS to report performance measures and set targets on safety, infrastructure, and system performance for their planning areas. System performance is reported as reliability: Level of Travel Time Reliability (Figure 12) and Truck Travel Time Reliability (Figure 13). These measure how predictable or consistent travel times are for passenger and freight vehicles along the Tier 1 network.

MAP-21 Performance Measures

88.5% Interstate Reliable **76.6%** Non-Interstate Roads Reliable **1.50** Truck Travel Time Reliability

COMPASS has adopted the Idaho Transportation Department's (ITD's) statewide targets for these measures.

Level of Travel Time Reliability (LOTTR)

Travel time reliability measures are used to tell how consistent travel time is from one point to another, from one day to the next. Factors such as weather, events, construction, or accidents can make it difficult to predict how long it can take to travel from one destination to another. Many commuters understand that congestion is unavoidable on their commute, but by being able to effectively budget enough time for their commutes can offsets some of the inconveniences caused by every day congestion. The overall MAP-21 reliability goals and targets are intended to make travel time more predictable (Figures 10 and 11).

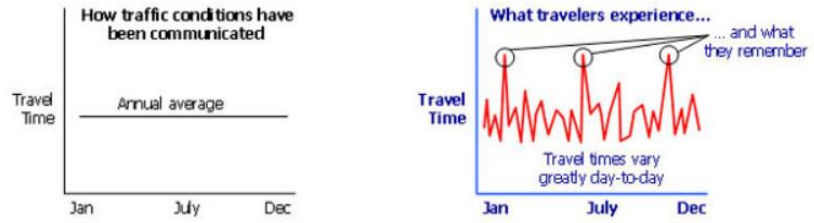

Figure 10: Reliability measures better reflect what commuters experience on a day-to-day basis

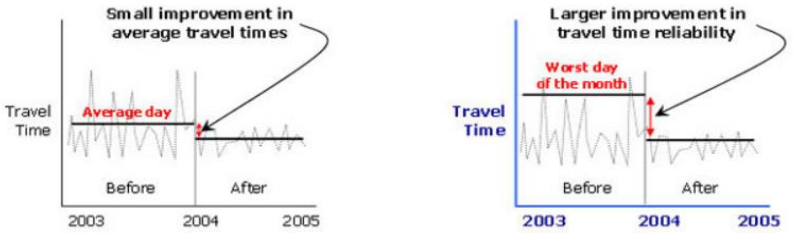

Figure 11: MAP-21 goals aim to decrease the variability of travel times from day-to-day

LOTTR is defined as the ratio of the longer travel times (80th percentile) to a "normal" travel time (50th percentile). A LOTTR score of 1.5 means that it takes 50% longer to travel a segment of roadway at times of some of the highest levels of congestion than during non-congested times. Roadways with LOTTR scores greater than 1.5 are considered unreliable. The overall system reliability is calculated by weighting each segment by person miles traveled (PMT). A percentage of reliable PMT on the system is used as an overall rating of the system reliability. COMPASS has adopted ITD's statewide targets of 90% of PMT reliable on interstates and 70% PMT reliable on the non-interstate system for performance measurement in Ada and Canyon counties. COMPASS is not meeting its interstate reliability measure at 88.5% of the interstate reliable, but is hitting its target for non-interstate roads at 76.6% of non-interstate roads reliable (Figure 12).

Truck Travel Time Reliability (TTTR)

TTTR is a metric used to measure how efficiently freight is moving through the transportation system. TTTR is similar to LOTTR except the 95th percentile travel time is used as the longer travel time in the equation, TTTR is only calculated for the interstate system, and it is presented as a weighted average. ITD has set a statewide target of a TTTR of less than 1.3 and COMPASS has adopted this target for its performance measurement. The COMPASS planning area is not hitting this target at 1.5 TTTR (Figure 13). This is likely due to issues cause by non-recurring congestion from weather and traffic incidents on the interstate.

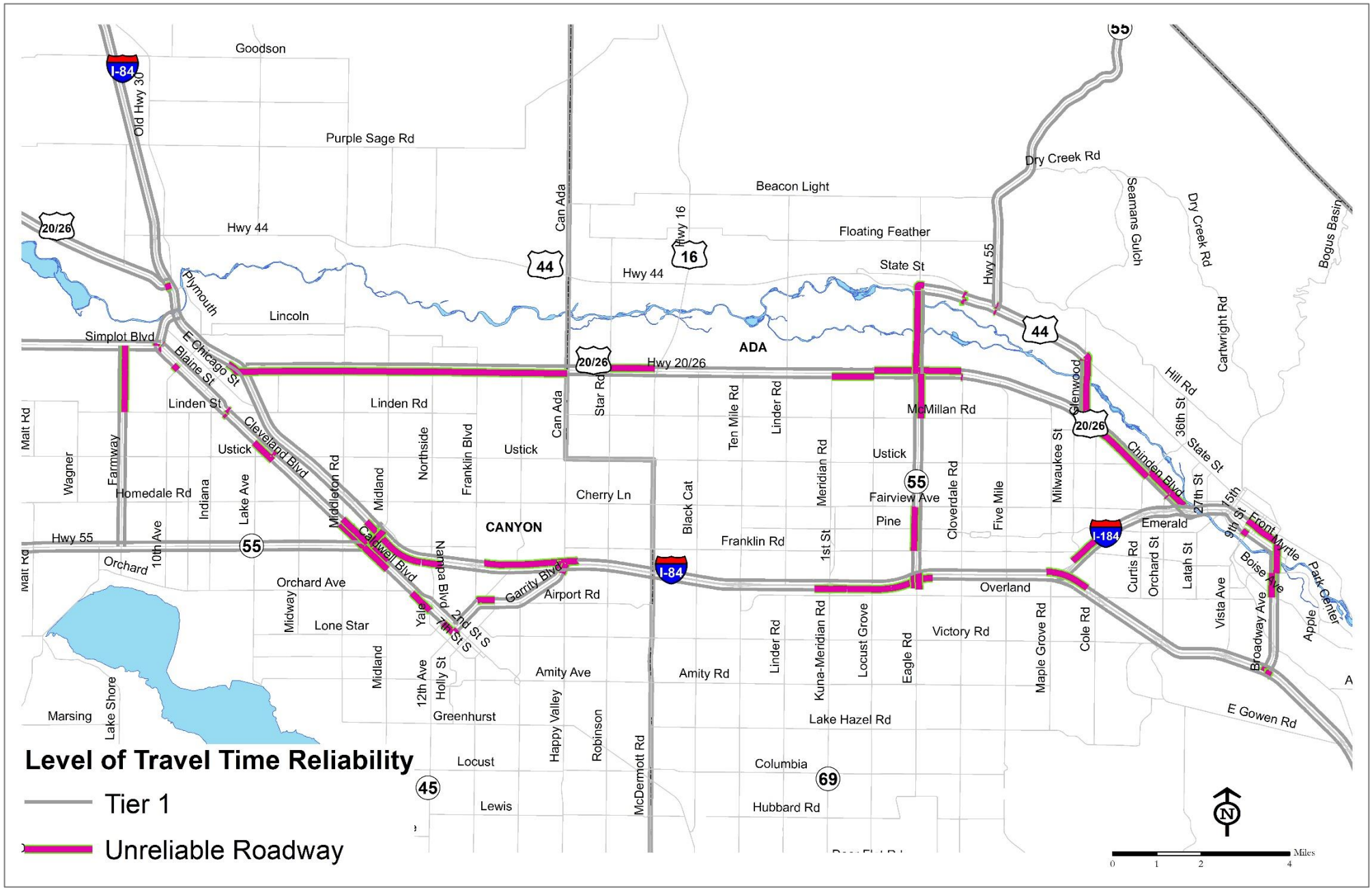

Figure 12: Level of Travel Time Reliability (2018)

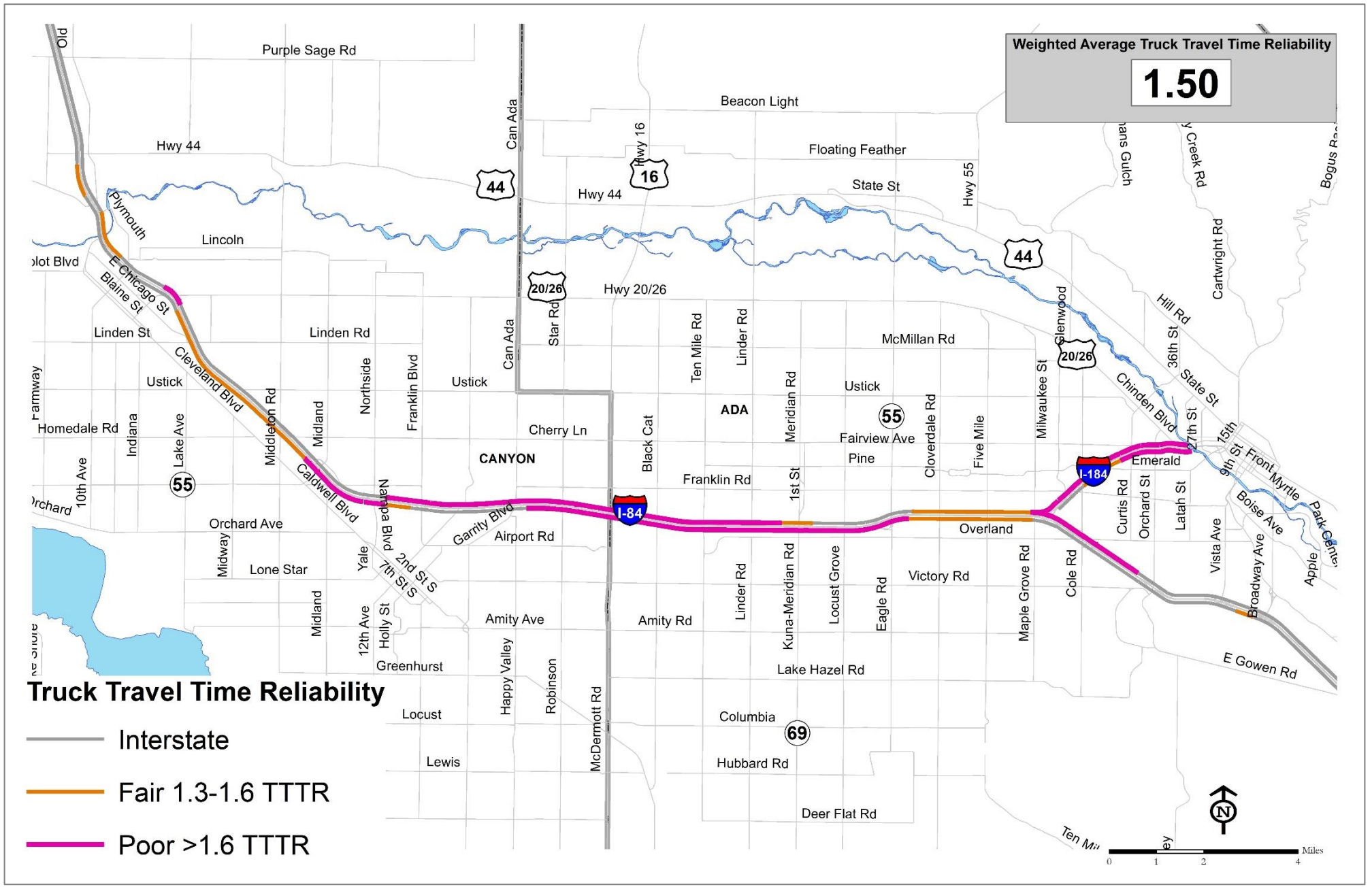

Figure 13: Truck Travel Time Reliability (2018)

COMPASS Performance Measures

COMPASS Change in Motion

COMPASS publishes a Change in Motion Scorecard on a biennial basis (most recently in 2018) to report on the progress made toward achieving the goals established in *Communities in Motion*, the long-range transportation plan for Ada and Canyon Counties. Five of the performance measures reported in the Change in Motion Scorecard concern the availability and usage of public transportation and bicycle/pedestrian infrastructure, which can help alleviate capacity issues by minimizing the number of single occupancy vehicles on the road (Table 7). Green checkmarks signal that COMPASS is on track to meet the targets set for 2040; yellow checkmarks signal that progress has been made toward the target, but not enough to meet the target by 2040. A red "X" indicates the region is not making progress on a target. As of 2018, the region was not on track to meet 2040 targets for transit passenger miles or percentage of employment near transit. The drop in both of these measures is likely due to a reduction of transit service in Meridian and along Overland Road in Boise 2018.

Table 7: Progress toward Communities in Motion Performance Measures (2018)

Performance Measure	2015	2017	2018	2040 Target	Progress
Percentage of Bicycle Lanes per Arterial Roadway Mile	16.4%	17.9%	21.3%	> 25%	
Percent of Sidewalks per Roadway Mile	48%	52%	53%	> 50%	
Miles of Trails and Pathways	509	565	576	> 754	
Transit Passenger Miles	7 Million	7.1 Million*	6.3 Million	> 13.5 Million	
Percentage of Employment Near Transit	61%	64%	60%	> 70%	

***2017 Transit Passenger Miles were estimated due to problems with fare box collections**

Strategies and Implementation Program

Congestion Mitigation Strategies

Congestion mitigation strategies are grouped into four categories, as identified in the Federal Highway Administration's Congestion Management Process: A Guidebook (Table 8). COMPASS and its member agencies implement these strategies to mitigate congestion through projects included in its TIP and long-range transportation plan (*Communities in Motion*).

Table 8: Congestion Mitigation Strategies

Strategy	Description	Examples	Measures Impacted
Travel Demand Management	Providing travelers with more options of how and when they commute in order to reduce the number of trips during congested hours	• Pedestrian/bicycle infrastructure • Ridesharing • Flexible work arrangements • Transit Oriented Development	• Bike lanes per arterial roadway • Sidewalks per roadway miles • Miles of trails and pathways • Peak hour TTI • Commute times
Traffic Operations Improvements/Intelligent Transportation Systems (ITS)	Implementing improvements focused on optimizing the current transportation infrastructure	• Optimize signal timing • Intersection improvements • Transit signal priority	• Peak hour TTI • System reliability • Commute times
Public Transportation Improvements	Improving transit operations, access, and services to encourage more usage to reduce the number of vehicles on the road	• Bus Rapid Transit • Expanded frequency/hours of service • Expanded public transportation system	• Peak hour TTI • System reliability • Commute times • Transit passenger miles • Percentage of employment near transit
Road Capacity	Expanding capacity by adding lanes, new roads, or improving intersections	• Add travel lanes • Fill gaps in the street network • Construct overpass/ underpasses	• Peak hour TTI • System reliability • Commute times

Programmed Congestion Reduction/Mitigation Projects

The TIP is a collection of projects selected by COMPASS to benefit the transportation system Ada and Canyon Counties. Multiple projects programmed (budgeted) in the FY2019-2023 TIP are designed to help mitigate congestion (Figure 14 and Table 9). The impacts of large scale congestion mitigation projects on the transportation network will be evaluated in subsequent CMP reports. You can find the most current TIP and archived TIPs at http://www.compassidaho.org/prodserv/transimprovement.htm.

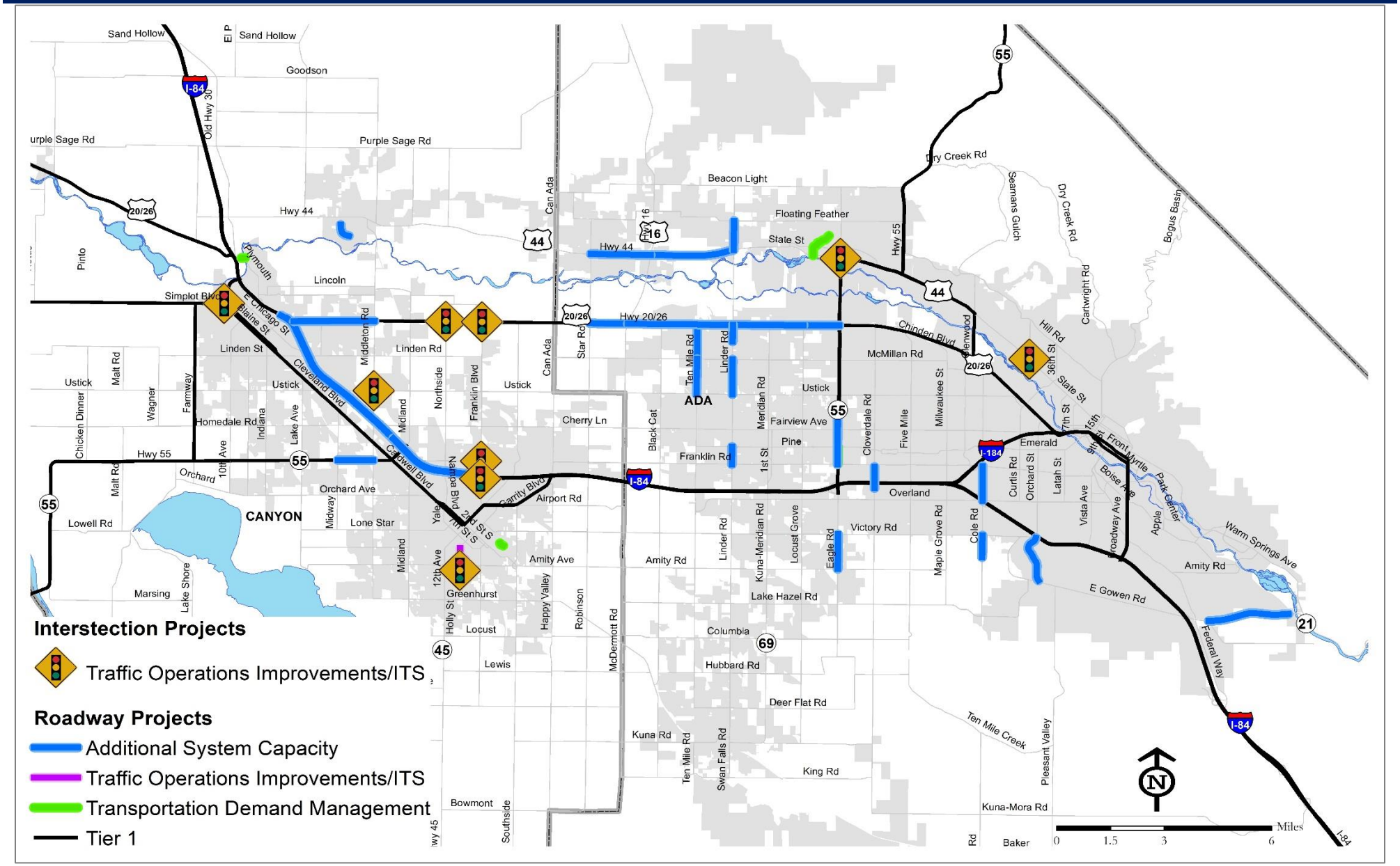

Figure 14: Programmed Projects Congestion Mitigation Projects, FY2019-2023 TIP

Table 9: Programmed Congestion Mitigation Projects, FY2019-2023 TIP

Strategy	Project Name	Tier 1 Corridor
Transportation Demand Management	Pathway, Stoddard Pathway, Iowa Avenue to Amity Avenue, Nampa	
	Old Highway 30, Plymouth Street Bridge, Caldwell	
	Pathway, Stoddard Pathway, Amity Avenue to Sherman Avenue, Nampa	
	Pathway, Dry Creek Trail and Underpass, Eagle	
	Pedestrian Improvements, SH-55 (Eagle Road), Franklin to Pine, Meridian	State Highway 55
	Pathway, Indian Creek, Taffy Drive to Peppermint Drive, Nampa	
	Pedestrian Improvements, Historic North Nampa Pathway, Nampa	
	Bicycle Parking, Secure Bicycle Facilities, Boise State	
	Bike Share, Boise	
Traffic Operational Improvements/ITS	Intersection Improvements, District 3 (Ada and Canyon counties)	
	Peckham Road Intersections, Canyon County	
	Franklin Boulevard and Karcher Road, Intersection Improvements, Nampa	
	3rd Avenue and West Industrial Road Intersection Improvements, Nampa	
	Centennial Way Roundabout, Caldwell	
	SH-44 (State Street) and SH-55 (Eagle Road) Intersection, 1/2 CFI (continuous flow intersection), Eagle	State Highway 55
	State Street and Collister Drive Intersection, Boise	
	Colorado Avenue and Holly Street, Signal and Pedestrian Improvements, Nampa	
	US 20/26, Intersection Improvements, Canyon County	US 20/26
	Middleton Road and Ustick Road, Roundabout, Caldwell	
	I-84, Middleton Road and Ustick Road Overpasses, Canyon County	I-84
	Holly Street/Northwest Nazarene University Roadway Reconfiguration, Nampa	
	I-84, Karcher Overpass, Nampa	I-84
Additional System Capacity	SH-55 (Karcher Road), Midway Road to Middleton Road, Nampa	State Highway 55
	South Cemetery Road, Highland Drive to Willow Creek, Middleton	
	Linder Road, Cayuse Creek Drive to US 20/26 (Chinden Boulevard), Meridian	
	Linder Road, SH-44 (State Street) to Floating Feather Road, Eagle	
	Ten Mile Road, McMillan Road to US 20/26 (Chinden Boulevard), Meridian	
	Ten Mile Road, Ustick Road to McMillan Road, Meridian	
	Orchard Street, Gowen Road to I-84 On-Ramp, Boise	
	Linder Road, Franklin Road to Pine Avenue, Meridian	
	US 20/26 (Chinden), Locust Grove Road to SH-55 (Eagle Road), Ada County	US 20/26
	Cole Road, McGlochlin Street to Victory Road, Boise	
	Linder Road, Ustick Road to McMillan Road, Meridian	
	SH-21, Technology Way to Surprise Way, Boise	
	SH-44 (State Street), SH-16 to Linder Road, Ada County	
	SH-44 (State Street), Star Road to SH-16, Ada County	
	SH-55 (Eagle Road), Meridian Towne Center, Meridian	State Highway 55
	I-84, Karcher Road interchange in the City of Nampa to the City of Caldwell	I-84
	US 20/26 (Chinden), SH-16 to Linder Road, Ada County	US 20/26
	I-84, Northside Boulevard to Karcher Road interchange, Nampa	I-84
	US 20/26 (Chinden), I-84 to Middleton Road, Canyon County	US 20/26
	Cloverdale Road, Camas Drive to Trutina Avenue and Overpass, Boise	
	I-84, Franklin Boulevard to Northside Boulevard, Nampa	I-84
	Cole Road, I-84 to Franklin Road, Boise	
	Eagle Road, Amity Road to Victory Road, Meridian	State Highway 55
	US 20/26 (Chinden), Star Road to SH-16, Ada County	US 20/26
	I-84, Karcher interchange to Franklin Boulevard Corridor, Nampa (Design)	I-84
	US 20/26 (Chinden), Linder Road to Locust Grove, Meridian and Eagle	US 20/26
	I-84, Franklin interchange to Karcher interchange, Canyon County	I-84
Public Transportation Improvements	Transit - Purchase of Service, Rural Areas, TVT	
	Transit - Acquisition of Service, Canyon County, VRT	
	Transit - Fixed Line Service, Rural Areas, TVT	
	Transit, Acquisition of Service, Nampa Area	

Summary

The Congestion Management Annual Report summarizes how the transportation system in Ada and Canyon Counties is performing and what the transportation agencies are doing to help mitigate congestion. This report and the travel time data it is based on are used by COMPASS in its transportation planning activities, including informing the project selection process for TIP, analyzing progress toward the goals of the regional long-range transportation plan, and providing assistance to member agencies with their planning processes.

The key takeaways from this report include:

- Population growth and construction activity continued to increase throughout 2018.
- The evening peak period (3pm to 7pm) is the most congested time of day on the Tier 1 network.
- The percentage of highly congested Tier 1 network segments decreased by 6% from 2017.
- Although the percentage of highly congested segments decreased in 2018, reliability on the Tier 1 system regressed from 2017 levels for interstate, non-interstate, and truck travel time reliability measures.
- On the Tier 2 network, many of the highly congested segments were I-84 and I-184 interchange ramps.
- Due to changes in public transportation service in 2018, the region did not make progress and is not on track to meet its public transportation performance targets by 2040.
- Major capacity projects on I-84 between the Karcher Road interchange (Exit 33) and the Franklin Boulevard interchange (Exit 35) and US 20/26 (Chinden Boulevard) between State Highway 16 and Eagle Road are set to begin in 2019-2020.
- Over 50 projects using congestion mitigation strategies are programmed in the FY2019-2023 TIP. Over $377 million are programmed in the TIP to improve travel time reliability on the National Highway System, and $322 million are specifically dedicated to improving passenger vehicle and freight travel time reliability on I-84.

Appendix
Detailed Corridor Congestion Analysis

I-84

I-84 Traffic Volumes, 2014-2018

I-84 in Ada and Canyon counties accommodates the largest volumes of vehicles in the entire state of Idaho. The busiest section of interstate is between the State Highway 55 (Eagle Road) interchange and the I-184 flying wye interchange— serving over 150,000 vehicles on an average weekday (Figure 15). However, between 2014 and 2018 the highest annual growth rates in traffic volumes on I-84 were in southeast Boise near the US 20/26 (Broadway Avenue) (10%) and Gowen Road (8%) interchanges and in Meridian near the State Highway 69 (Meridian Road) (7%) interchange and Locust Grove overpass (Table 10).

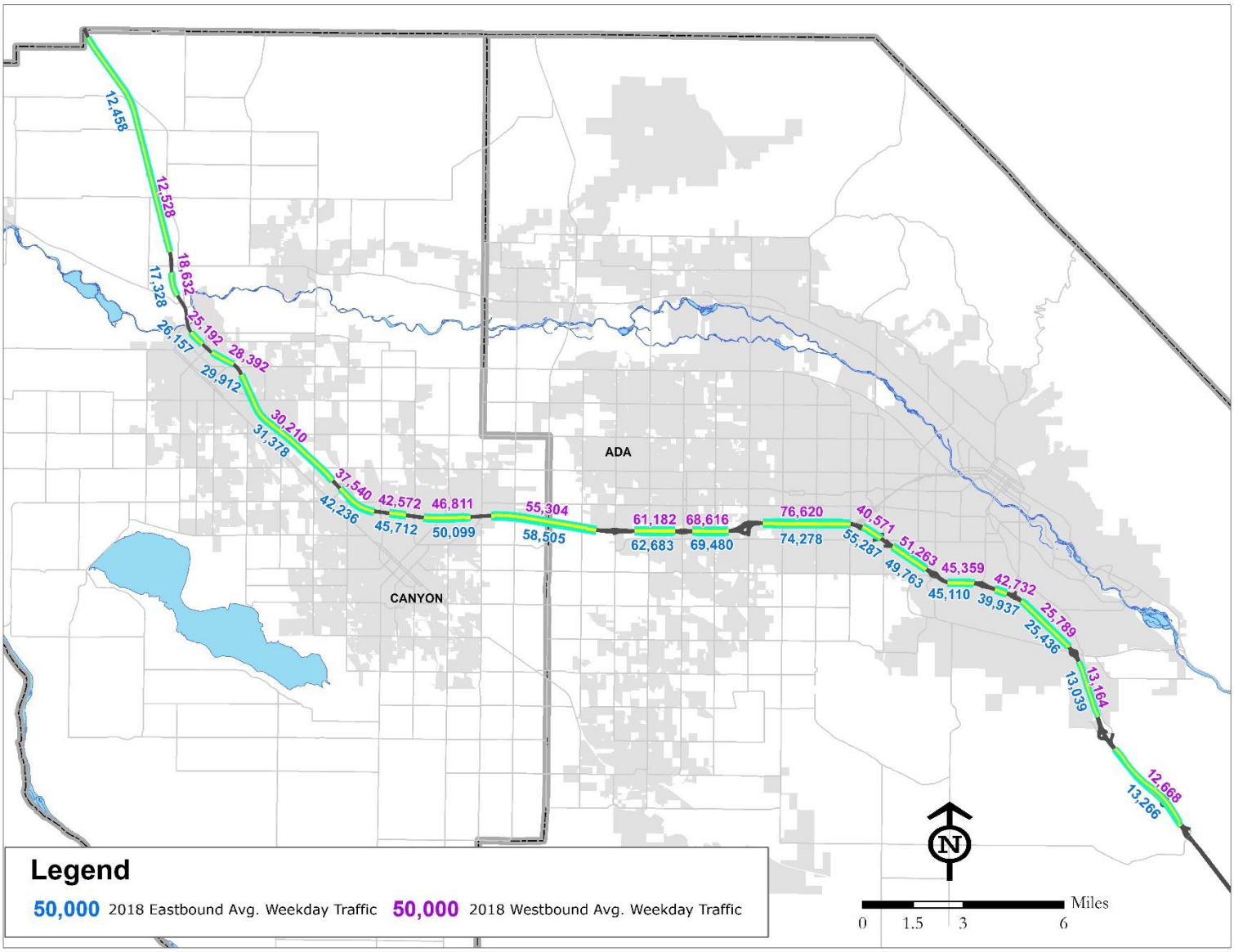

Figure 15: I-84 Annual Average Weekday Traffic Volumes (automatic traffic recorder counts) (2018)

Table 10: I-84 Average Annual Weekday Traffic Volumes (2014-2018)

I-84 Locations	Direction	2014	2015	2016	2017	2018	Annual Growth Rate
0.6 miles w/o Broadway Ave IC	West	29,302	33,307	39,400	40,266	42,732	10%
0.74 miles w/o EB Off Ramp Gowen Rd (Exit 57)	West	19,840	19,070	23,796	24,315	25,789	8%
0.74 miles w/o EB Off Ramp Gowen Rd (Exit 57)	East	20,524	18,807	23,055	24,369	25,436	7%
w/o Locust Grove Overpass	East	55,389	53,153	64,359	66,712	69,480	7%
0.61 miles w/o WB On Ramp IC 44 (Meridian)	East	49,959	49,955	57,506	60,251	62,683	7%
w/o Locust Grove Overpass	West	55,322	53,504	63,606	65,026	68,616	6%
0.6 miles w/o Broadway Ave IC	East	32,265	32,161	33,834	38,369	39,937	6%
1.8 miles se/o Sand Hollow IC	Northwest	9,989	10,350	11,332	11,734	12,528	6%
0.4 miles nw/o US 20/26 (Exit 26)	West	14,485	15,807	16,281	16,918	18,632	6%
0.61 miles w/o WB On Ramp IC 44 (Meridian)	West	49,605	49,852	56,162	57,830	61,182	6%
1.8 miles se/o Sand Hollow IC	Southeast	9,915	10,636	11,309	11,859	12,458	6%
1.4 miles se/o Gowen Rd IC	Northwest	10,540	11,129	12,069	12,406	13,164	6%
nw/o 10th Ave interchange (Exit 28)	Southeast	20,998	22,401	23,908	24,886	26,157	6%
nw/o 10th Ave interchange (Exit 28)	Northwest	20,211	21,648	23,012	23,809	25,192	6%
w/o 11th Ave Overpass	East	40,620	43,125	46,221	47,865	50,099	5%
1.5 miles nw/o Blacks Creek IC	Southeast	10,649	11,126	11,567	12,082	13,266	5%
0.8 miles w/o Orchard IC	Southeast	40,857	42,340	46,330	47,811	49,763	5%
se/o Ustick Road Overpass (Caldwell)	East	25,193	27,449	29,426	29,592	31,378	5%
0.8 miles w/o Orchard IC	Northwest	41,967	43,292	47,737	48,200	51,263	5%
1.4 miles se/o Gowen Rd IC	Southeast	10,668	11,250	12,048	12,486	13,039	5%
nw/o Franklin Rd interchange (Exit 29)	Southeast	24,177	25,918	27,627	28,014	29,912	5%
0.7 miles e/o Robinson Rd overpass	East	48,253	50,000	54,029	56,267	58,505	5%
se/o Ustick Road Overpass (Caldwell)	West	24,462	26,573	28,350	28,372	30,211	5%
1.2 miles w/o I 184 IC (Five Mile)	East	62,793	61,759	68,434	71,397	74,278	5%
nw/o Franklin Rd interchange (Exit 29)	Northwest	23,322	24,959	26,504	27,218	28,393	5%
1.2 miles w/o I 184 IC (Five Mile)	West	65,328	61,355	70,350	71,849	76,620	5%
w/o Beg EB Off Ramp Franklin Blvd IC (Exit 36)	East	37,708	40,786	43,231	44,163	45,712	5%
0.1 miles se/o Karcher Rd interchange (Exit 33)	East	34,789	37,657	38,790	40,239	42,236	5%
1.5 miles nw/o Blacks Creek IC	Northwest	10,506	11,137	11,711	11,952	12,668	5%
0.4 miles w/o Vista Ave IC	West	40,464	42,954	47,322	45,359	-	4%
0.4 miles nw/o US 20/26 (Exit 26)	East	14,896	15,655	16,786	17,590	17,328	4%
0.7 miles e/o Robinson Rd overpass	West	47,193	48,948	52,691	53,440	55,304	4%
0.3 miles w/o Cole/Overland interchange (Boise)	Northwest	34,759	35,533	39,630	38,932	40,571	4%
w/o 11th Ave Overpass	West	39,836	42,127	44,127	44,602	46,811	4%
0.4 miles w/o Vista Ave IC	East	41,145	42,303	46,652	45,110	-	4%
w/o Beg EB Off Ramp Franklin Blvd IC (Exit 36)	West	36,553	39,189	40,905	40,796	42,572	4%
0.1 miles se/o Karcher Rd interchange (Exit 33)	West	32,712	35,238	38,381	37,123	37,540	3%
0.3 miles w/o Cole/Overland interchange (Boise)	Southeast	49,322	49,806	54,637	54,882	55,287	3%
Source: Automatic Traffic Recorders maintained by ITD							

I-84 Speed Profiles

Over the past five years, the average speeds during the morning and evening commute have decreased between the Centennial Way interchange in the City of Caldwell and the Flying Wye interchange with I-184 in the City of Boise (Figures 16 and 17). In 2018, the average speed was about 51 mph during both the morning (eastbound) and evening (westbound) commutes. Another trend that could be emerging is a decrease in average speeds starting around 5 pm in the eastbound direction – this may suggest that the number of people commuting to Meridian, Nampa, and Caldwell for work from the Boise area is increasing. Overall, the speed profiles for the past three years are relatively typical.

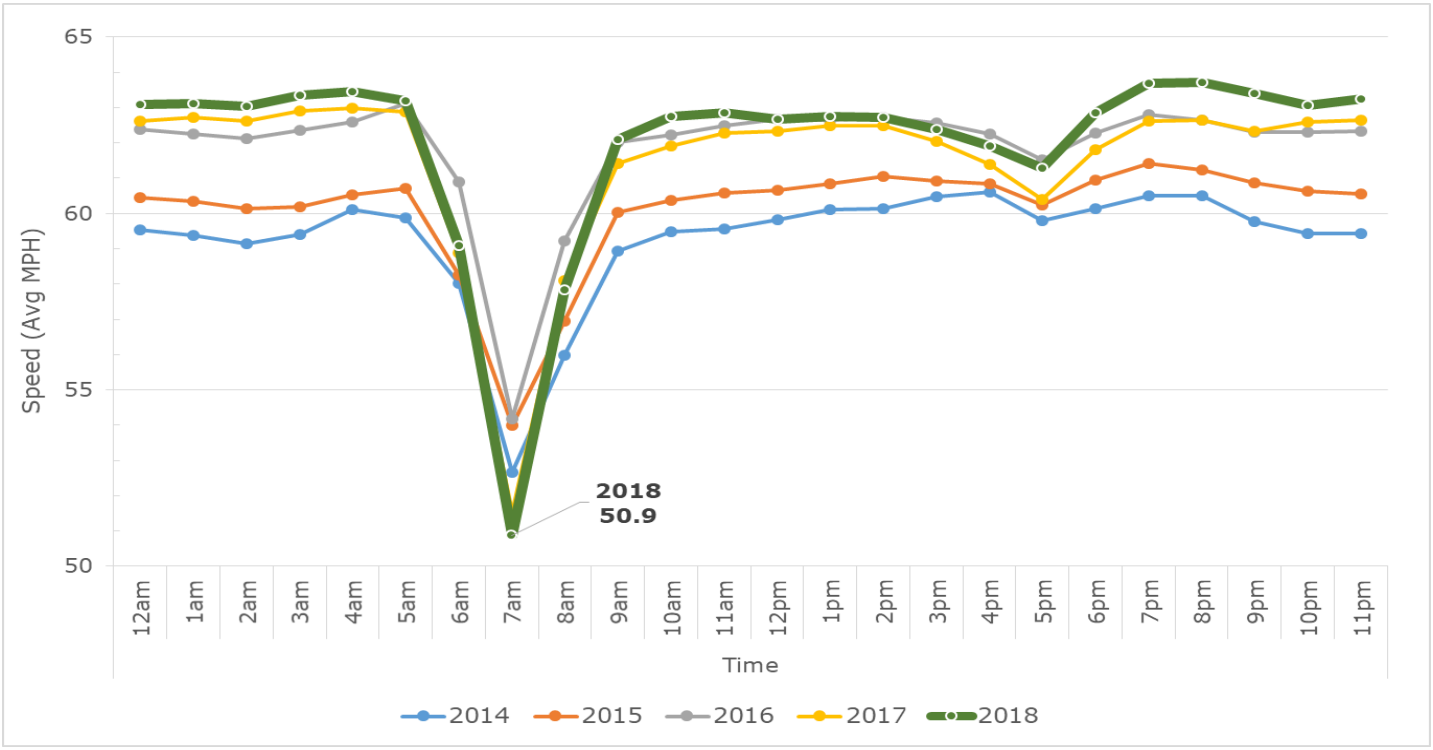

Figure 16: I-84 Eastbound (Centennial Way to Flying Wye interchange I-184), Average Weekday Speeds (2014 – 2018)

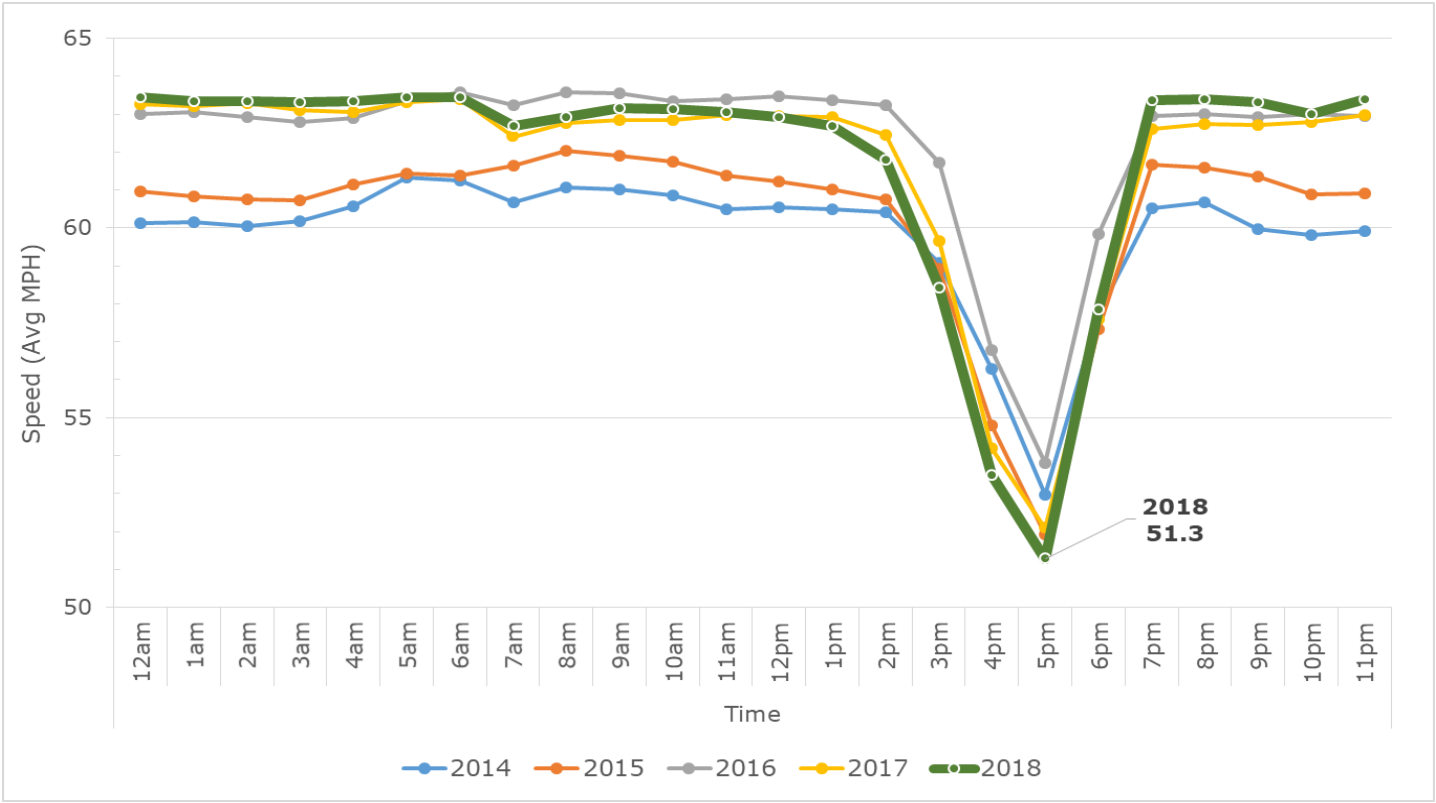

Figure 17: I-84 Westbound (Flying Wye interchange I-184 to Centennial Way), Average Weekday Speeds (2014 – 2018)

I-84 Congestion Analysis and Congestion Mitigation Strategies

I-84 experiences most of its congestion issues in the City of Nampa between the Karcher Road interchange and the Garrity Boulevard interchange. The westbound congestion is caused by a "bottleneck" where the interstate changes from three to two travel lanes. Eastbound congestion is most likely caused by a high volume of cars entering the interstate during the morning commute with a short distance to merge onto a two-lane interstate (Figure 18). In addition, the Meridian and Flying Wye (I-184) interchanges experience moderate congestion during peak hours due to the volume of vehicles merging onto the interstate. The programmed and planned projects for this section of I-84 are highlighted in Table 11.

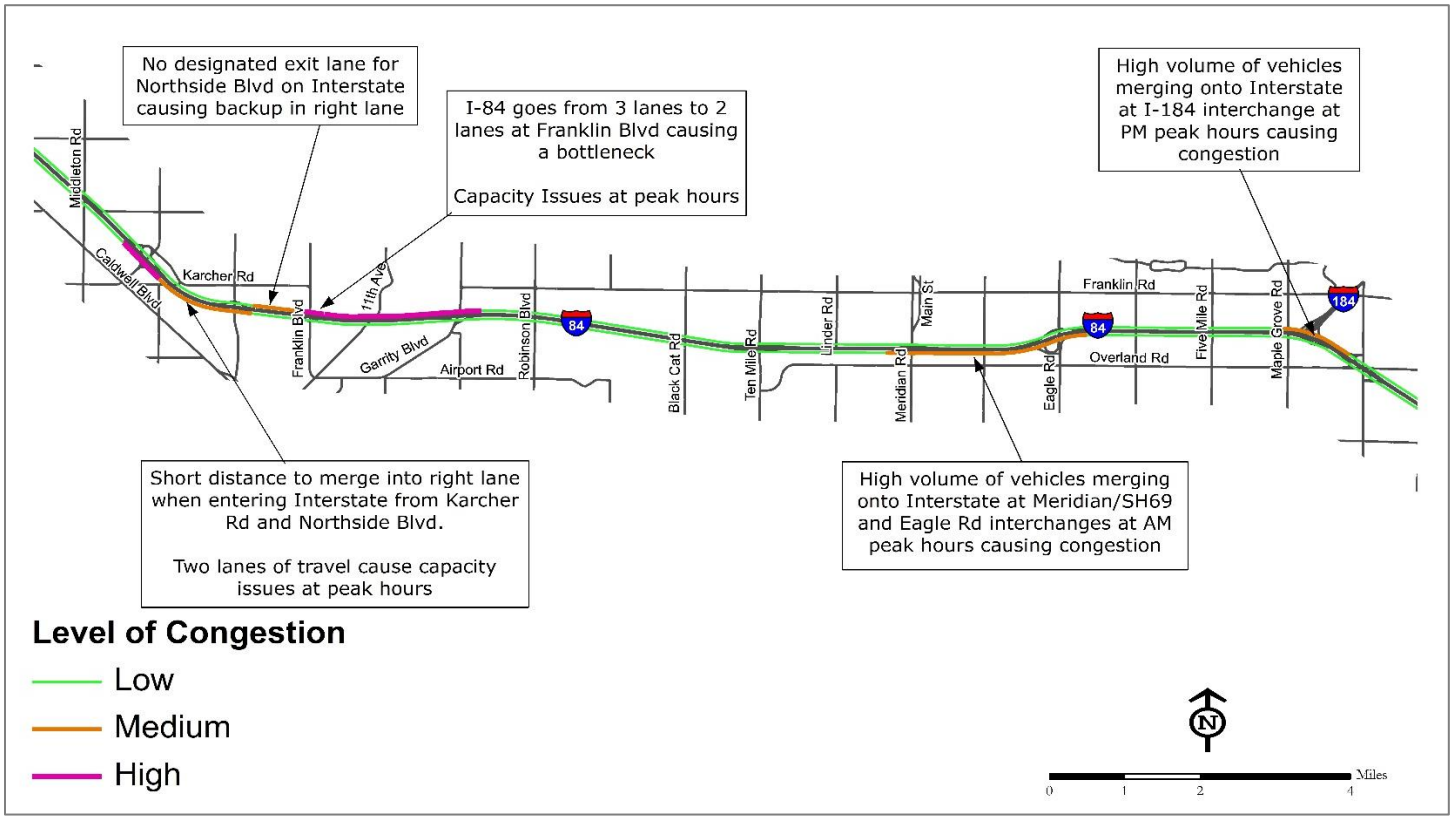

Figure 18: I-84 Levels of Peak Hour Congestion and Causes of Congestion (2018)

Table 11: I-84 Congestion Mitigation Projects

Strategy	Programmed Projects (FY2019-2023)	Planned Funded Projects (FY2024-2040)	Planned Unfunded Projects
Travel Demand Management	✓ ACHD Commuteride		
Traffic Operations Improvements/Intelligent Transportation Systems (ITS)			
Public Transportation Improvements			✓ New and extended services
Road Capacity	✓ Widen I-84 to 3 lanes in each direction between Karcher Rd interchange (Exit 33) and Franklin Blvd interchange (Exit 36) and from the City of Caldwell (Exit 29) to Karcher Rd interchange (Exit 33)		✓ Widen I-84 to 3 lanes in each direction between Centennial Way (Exit 27) and City of Caldwell (Exit 29)

I-184

I-184 Traffic Volumes, 2014 - 2018

The busiest stretch of I-184 is between the Curtis and Franklin interchanges (Figure 19). I-184 average volume rate increases were more modest than the increases along I-84 from 2014 to 2018 (Table 12). The most significant growth in traffic volumes on I-184 over the past five years has been in the northeast direction just past the Emerald Street Overpass.

Figure 19: I-184 Average Annual Weekday Traffic Volumes (automatic traffic recorder counts) (2018)

Table 12: I-184 Average Annual Weekday Traffic Volumes (2014-2018)

I-184	Direction	2014	2015	2016	2017	2018	Annual Growth Rate
1.4 miles ne/o I 84 IC (Emerald Overpass)	Northeast	39,431	40,043	43,093	44,292	45,072	4%
1.4 miles ne/o I 84 IC (Emerald Overpass)	Southwest	41,787	42,298	45,160	45,050	46,894	3%
0.4 miles e/o Boise River (Connector EB)	East	40,930	41,549	42,198	39,872	43,549	1%
0.4 miles e/o Boise River (Connector WB)	West	34,806	35,197	36,542	34,326	37,265	1%
Source: Automatic Traffic Recorders maintained by ITD							

I-184 Speed Profiles

The average weekday speed profiles for the section of I-184 from the Flying Wye to its terminus about one mile west of the 15th / Front Street intersection show speeds decrease during the morning (eastbound) and evening (westbound) peak hours (Figures 20 and 21). The evening reduction in speed westbound is much more pronounced than the morning eastbound reduction. Moreover, the morning eastbound speeds appear to have stabilized between 2016 and 2018.

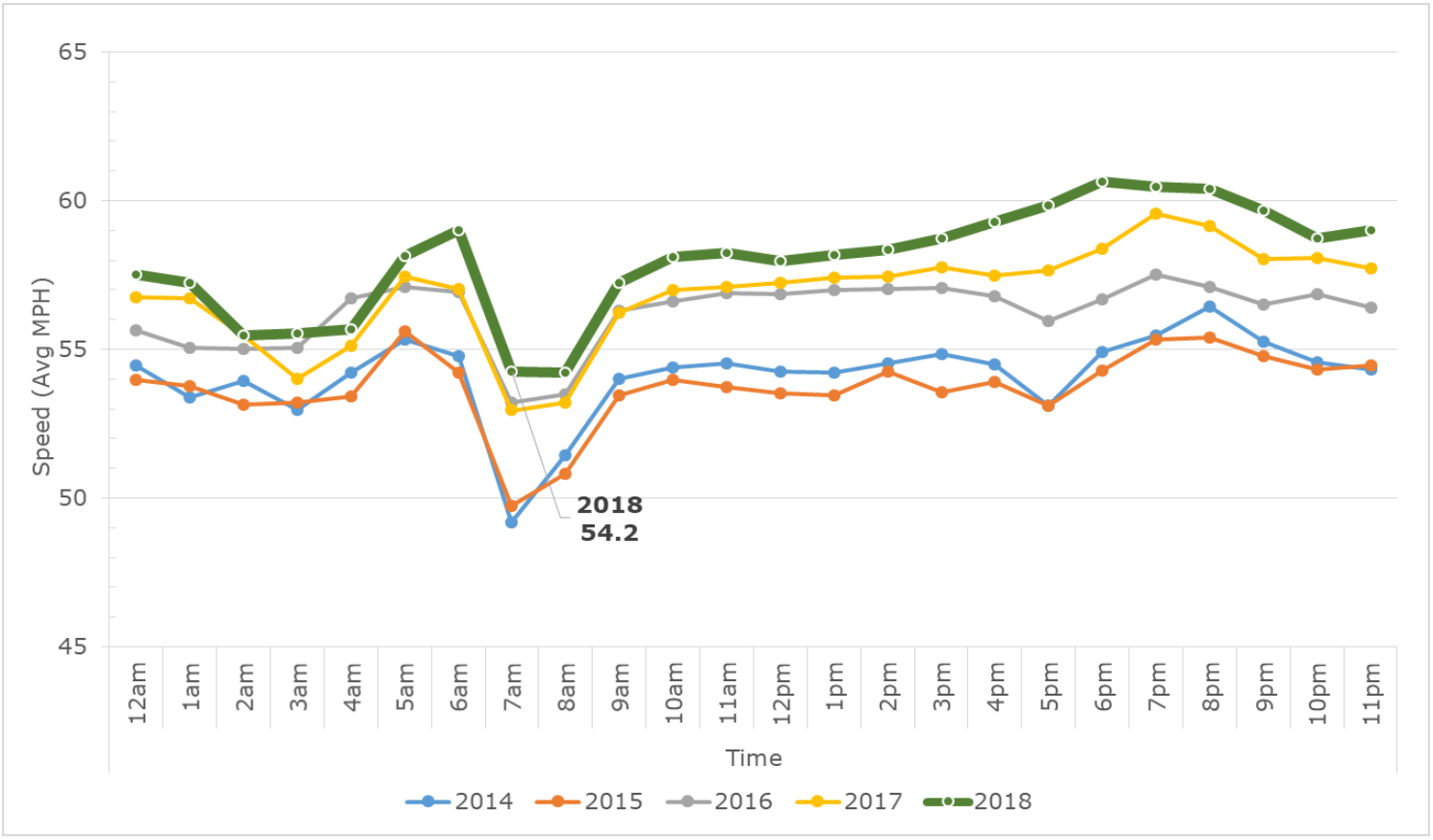

Figure 20: I-184 Eastbound, Average Weekday Speeds (2014 – 2018)

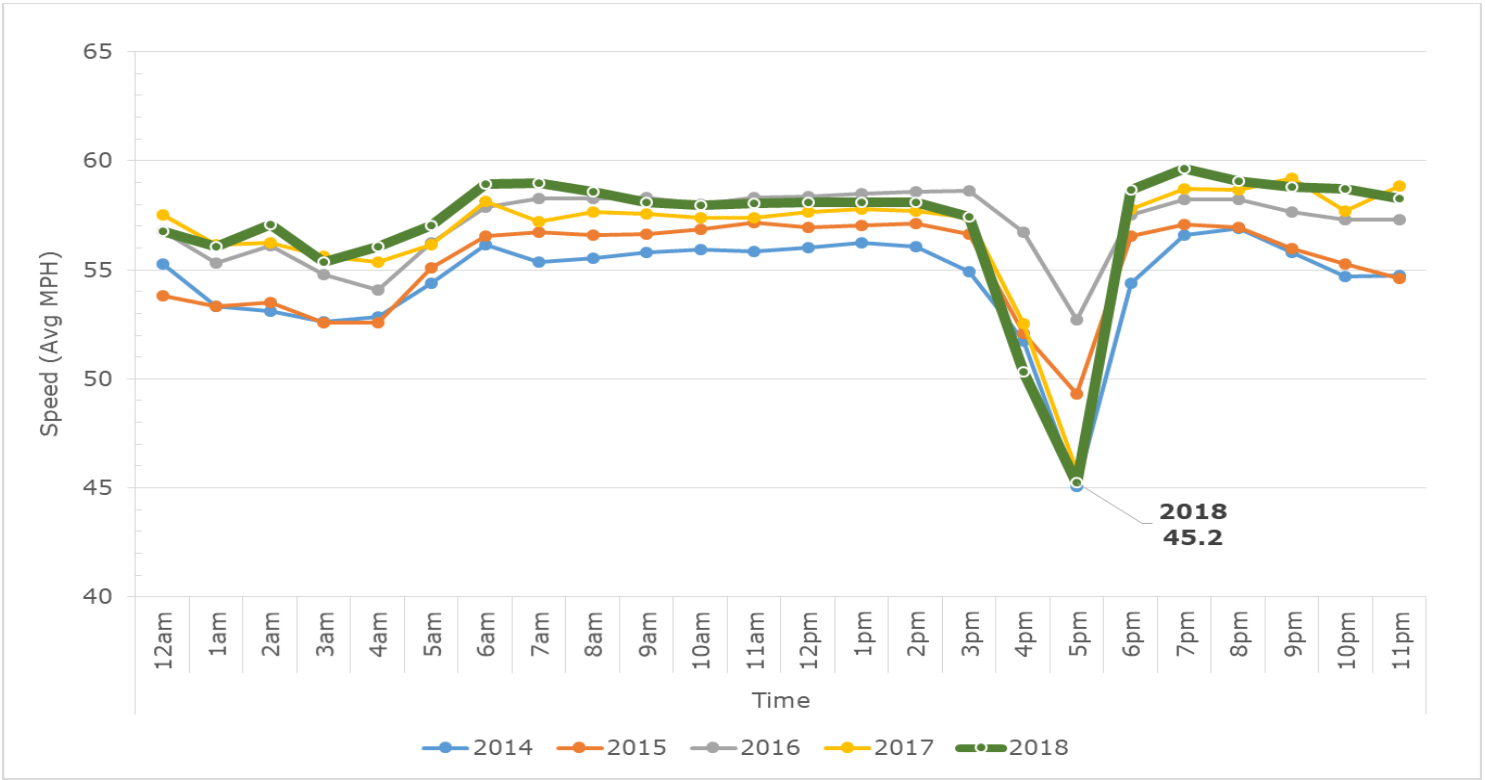

Figure 21: I-184 Westbound, Average Weekday Speeds (2014 – 2018)

I-184 Congestion Analysis and Congestion Mitigation Strategies

Congestion on I-184 typically occurs in the westbound direction during the evening commute where I-184 merges with I-84 (Figure 22). This is caused by commuters leaving the City of Boise at the end of the work day. The programmed and planned projects for I-184 are highlighted in Table 13.

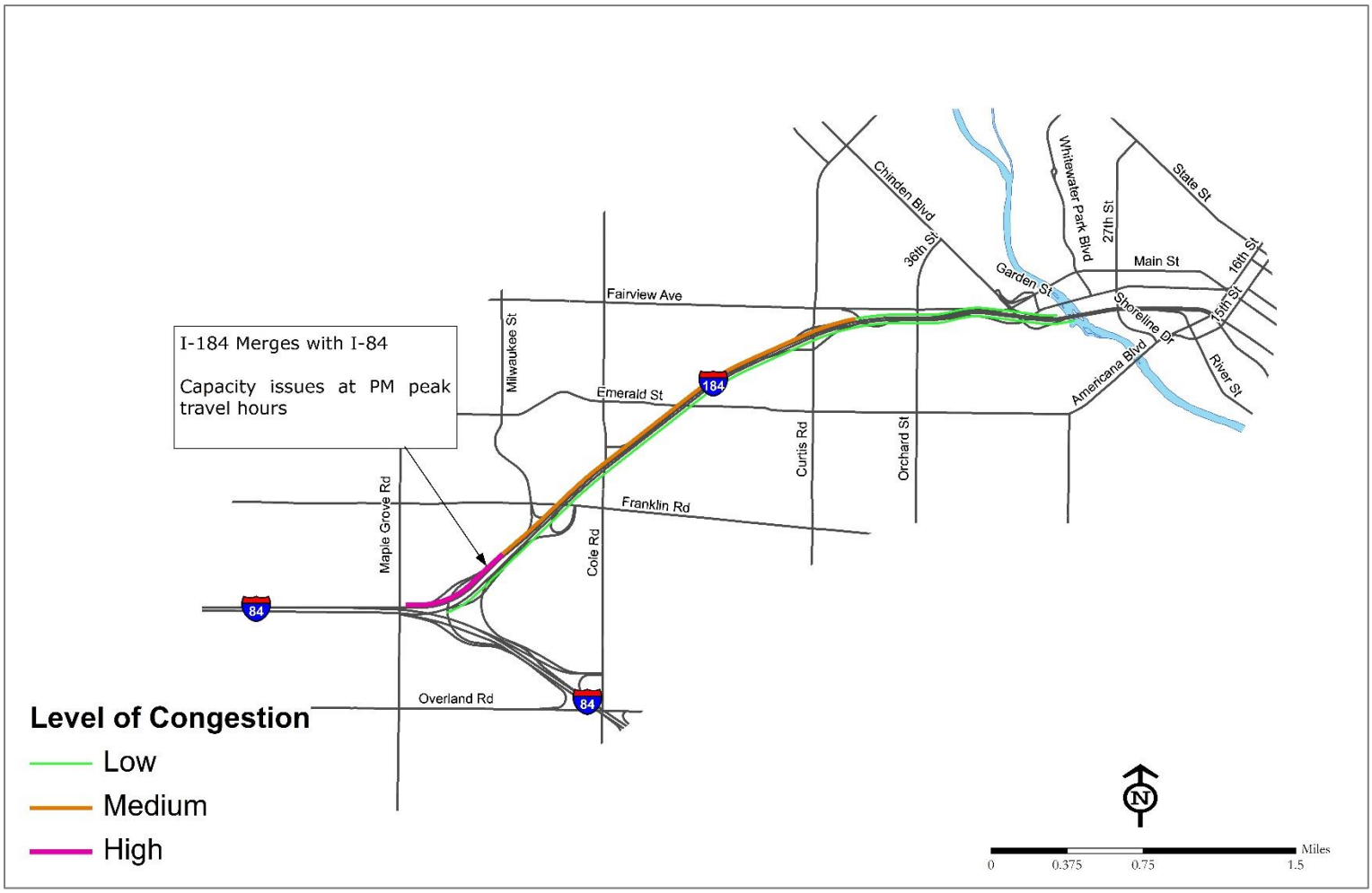

Figure 22: I-184 Levels of Peak Hour Congestion and Causes of Congestion (2018)

Table 13: I-184 Congestion Mitigation Projects

Strategy	Programmed Projects (FY2019-2023)	Planned Funded Projects (FY2024-2040)	Planned Unfunded Projects
Travel Demand Management	✓ ACHD Commuteride		
Traffic Operations Improvements/Intelligent Transportation Systems (ITS)			
Public Transportation Improvements			✓ Planned new and extended services
Road Capacity			

US 20/26

US 20/26 Traffic Volumes, 2014 - 2018

The highest traffic volumes on US 20/26 occur near the I-184 interchange (Figure 23). US 20/26 has seen the highest average growth rates in traffic volumes in Canyon County. Just east of I-84 (Exit 29), US 20/26 has seen an average of 6% growth in traffic volumes per year from 2014-2018 (Table 14). The busier sections of US 20/26 in Garden City and Boise have averaged much lower growth rates in the same five-year period.

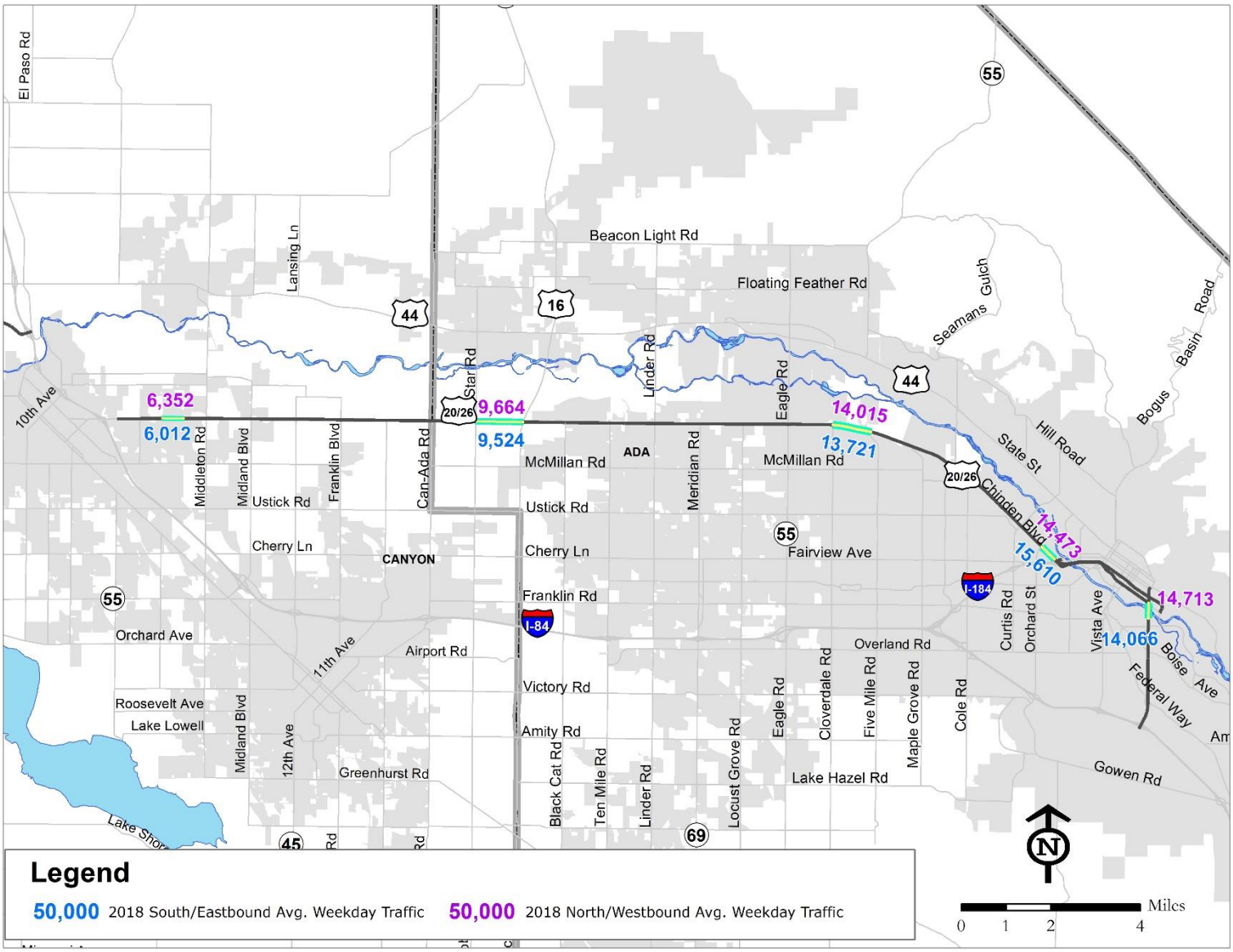

Figure 23: Annual Average Weekday Volumes on US 20/26 (automatic traffic recorder counts) (2018)

Table 14: US 20/26 (Chinden Boulevard/Broadway Avenue), Average Annual Weekday Traffic Volumes (2014-2018)

Road	Location	Direction	2014	2015	2016	2017	2018	Annual Growth Rate
US 20/26	1.6 miles e/o Jct I-84 IC #29 (e/o KCID Rd)	West	4,942	5,346	5,625	6,042	6,352	6%
US 20/26	1.6 miles e/o Jct I-84 IC #29 (e/o KCID Rd)	East	4,745	5,057	5,354	5,796	6,012	6%
US 20/26 (Chinden Blvd)	w/o McDermott Rd	East	-	8,336	8,470	9,014	9,524	5%
US 20/26	w/o Apple Valley Rd	East	2,134	2,215	2,335	2,425	2,569	5%
US 20/26	w/o Apple Valley Rd	West	2,103	2,180	2,289	2,343	2,509	4%
US 20/26	0.38 miles nw/o Mink Rd	Southeast	3,285	3,408	3,689	3,749	3,861	4%
US 20/26 (Chinden Blvd)	w/o McDermott Rd	West	-	8,554	8,668	9,065	9,664	4%
US 20/26	0.38 miles nw/o Mink Rd	Northwest	3,186	3,303	3,573	3,553	3,693	4%
US 20/26 (Chinden Blvd)	w/o 32nd St	Southeast	14,153	14,486	14,154	14,752	15,610	2%
US 20/26 (Chinden Blvd)	w/o 32nd St	Northwest	13,318	13,383	13,008	13,150	14,473	1%
US 20/26 (Chinden Blvd)	0.14 miles nw/o Five Mile Ext.	Northwest	13,693	13,749	13,276	13,271	14,015	0%
US 20/26 (Broadway Ave)	s/o Myrtle (River Crossing)	South	14,143	15,109	12,969	13,928	14,713	0%
US 20/26 (Chinden Blvd)	0.14 miles nw/o Five Mile Ext.	Southeast	13,617	13,733	13,185	13,259	13,721	0%
Source: Automatic Traffic Recorders maintained by ITD								

*Broadway Bridge Closed for replacement

US 20/26 Speed Profiles

The US 20/26 speed profiles are broken into five different sections to account for different roadway characteristics along the corridor.

US 20/26: I-84 (Exit 29) to State Highway 55 (Eagle Road)

US 20/26 from I-84 (Exit 29) to State Highway 55 (Eagle Road) exhibits predictable morning and afternoon slowdowns. Speeds reach the slowest points at 7 am (eastbound) and 5 pm (westbound). Average speeds improved in 2018 in both directions except for the westbound evening peak hours, where there was little change from 2017 (Figures 24 and 25).

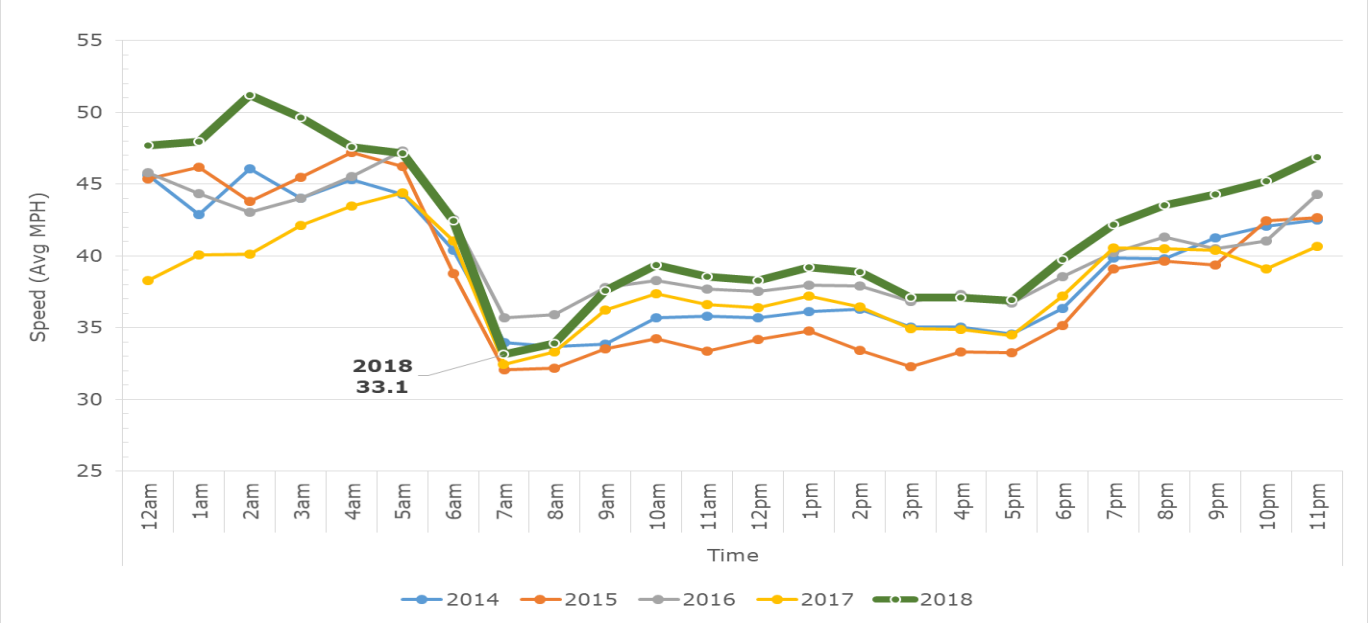

Figure 24: US 20/26 (I-84 to State Highway 55 [Eagle Road]) Eastbound, Average Weekday Speeds (2014 – 2018)

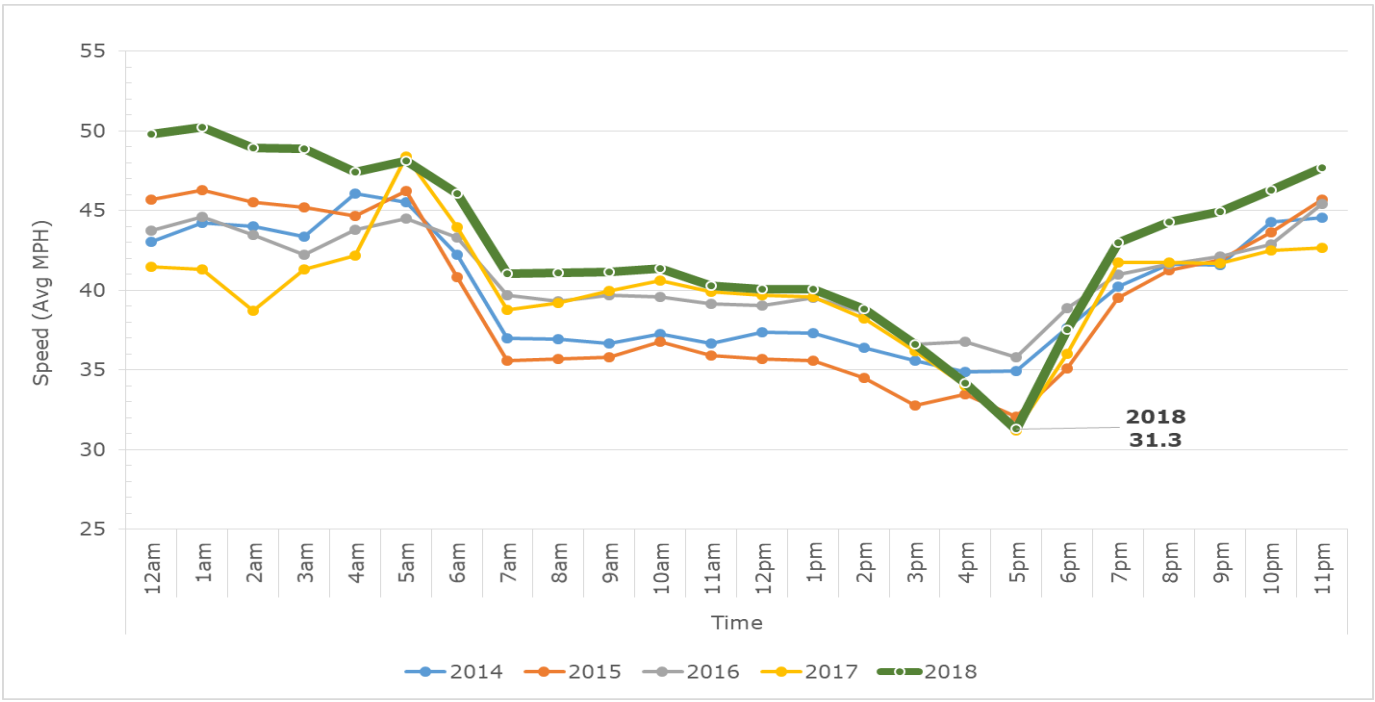

Figure 25: US 20/26 (State Highway 55 [Eagle Road] to I-84) Westbound, Average Weekday Speeds (2014 – 2018)

US 20/26 (Chinden Boulevard): State Highway 55 (Eagle Road) to Glenwood Street

The section of US 20/26 between State Highway 55 (Eagle Road) and Glenwood Street heading eastbound experiences a reduction in speeds beginning with the morning commute and continuing throughout typical business hours (Figure 26). The westbound direction sees the typical evening peak hour slowdown associated with an increase in commuters on the road (Figure 27). Also, the posted speed limit changes from 50 mph west of Glenwood Street to 35 mph east of Glenwood Street, which contributes to the overall average speed hovering near 30 mph.

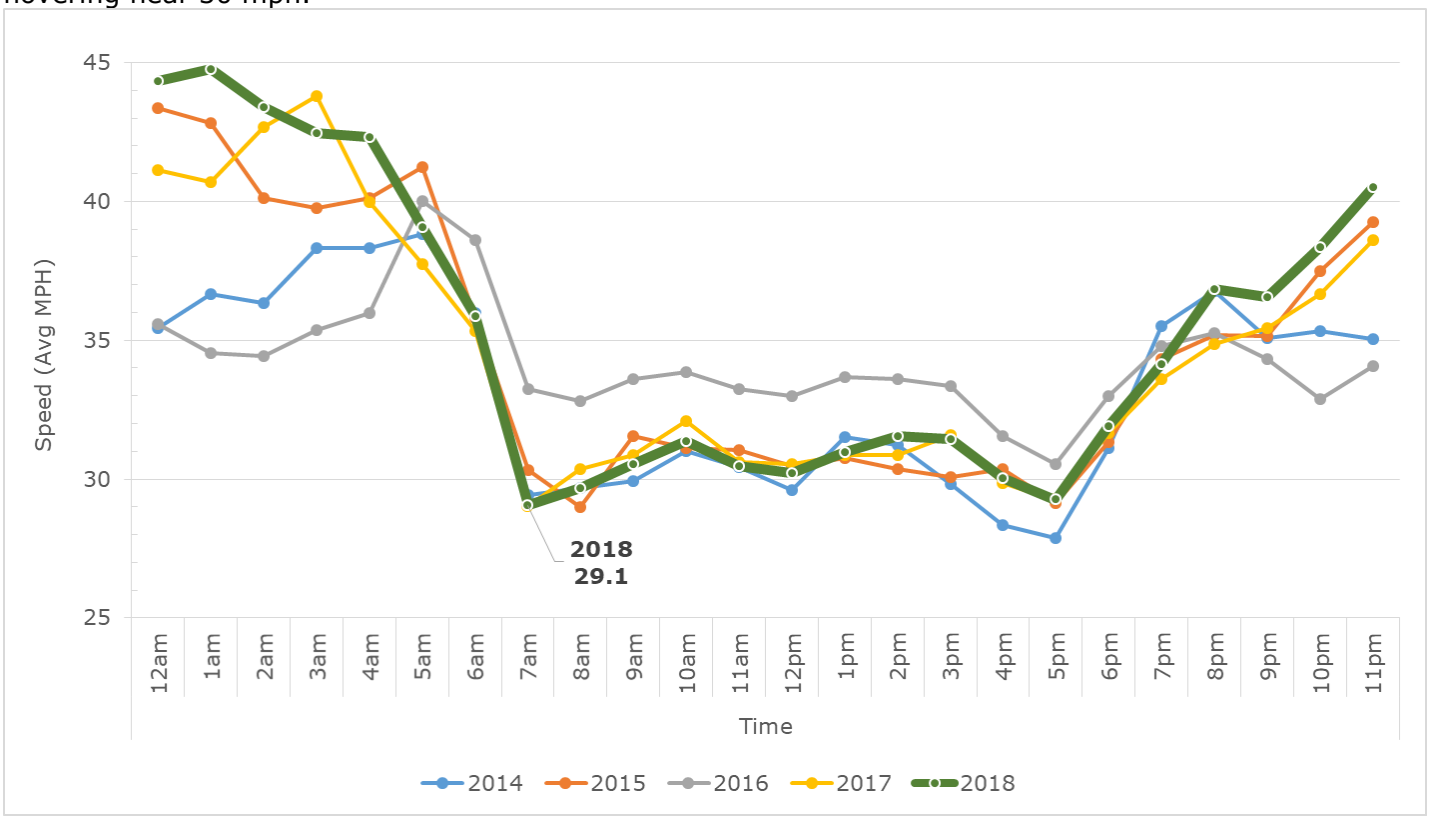

Figure 26: US 20/26 (State Highway 55 [Eagle Road] to Glenwood Street) Eastbound, Average Weekday Speeds (2014 – 2018)

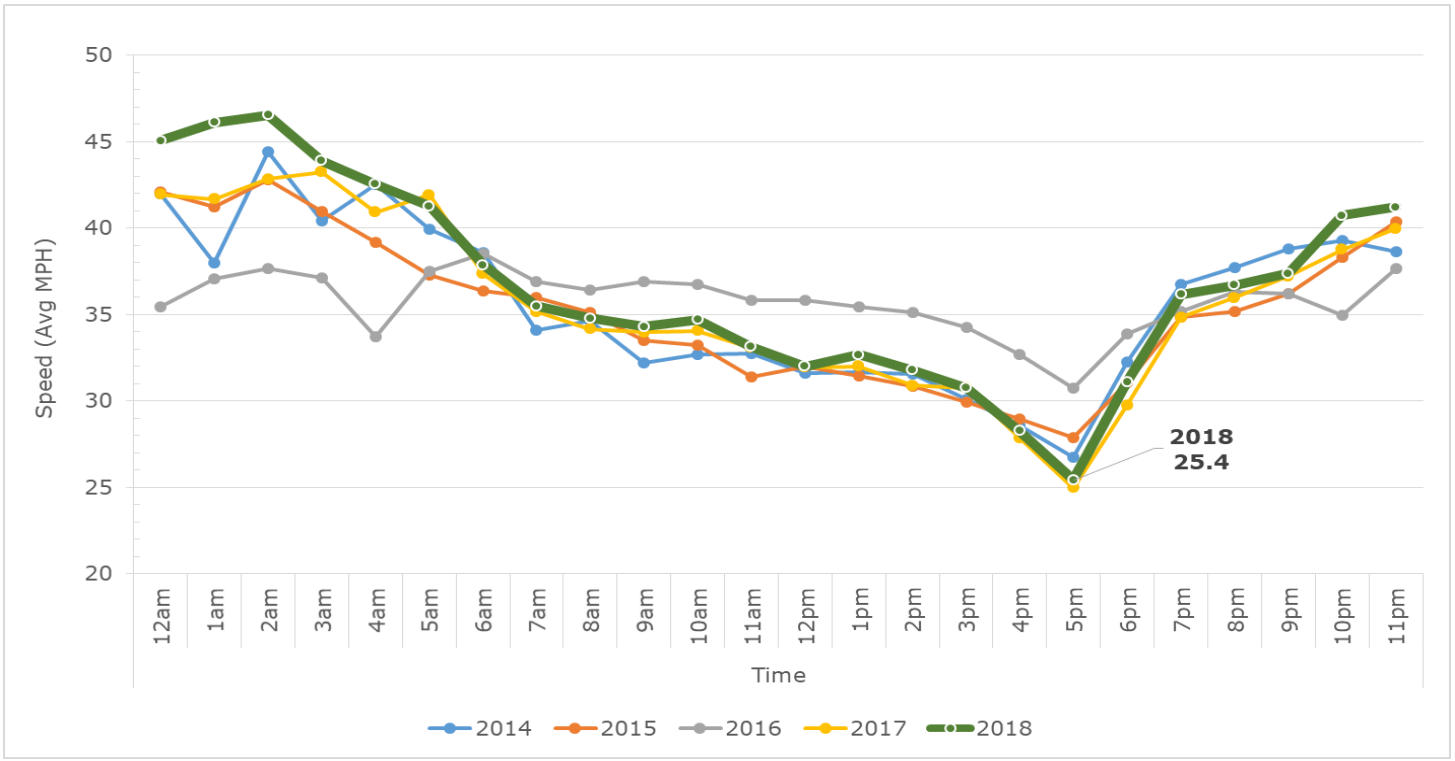

Figure 27: US 20/26 (Glenwood Street to State Highway 55 [Eagle Road]) Westbound, Average Weekday Speeds (2014 – 2018)

US 20/26 (Chinden Boulevard): Glenwood Street to I-184

The section of US 20/26 between Glenwood Street and I-184 heading eastbound sees a degradation in speeds starting with the morning commute and continuing through typical business hours (Figure 28). The westbound direction experiences the most dramatic slowdown, bottoming out at 18mph, during the 5 pm hour (Figure 29). This is likely due to commuters traveling from work to home on Chinden Boulevard at this time.

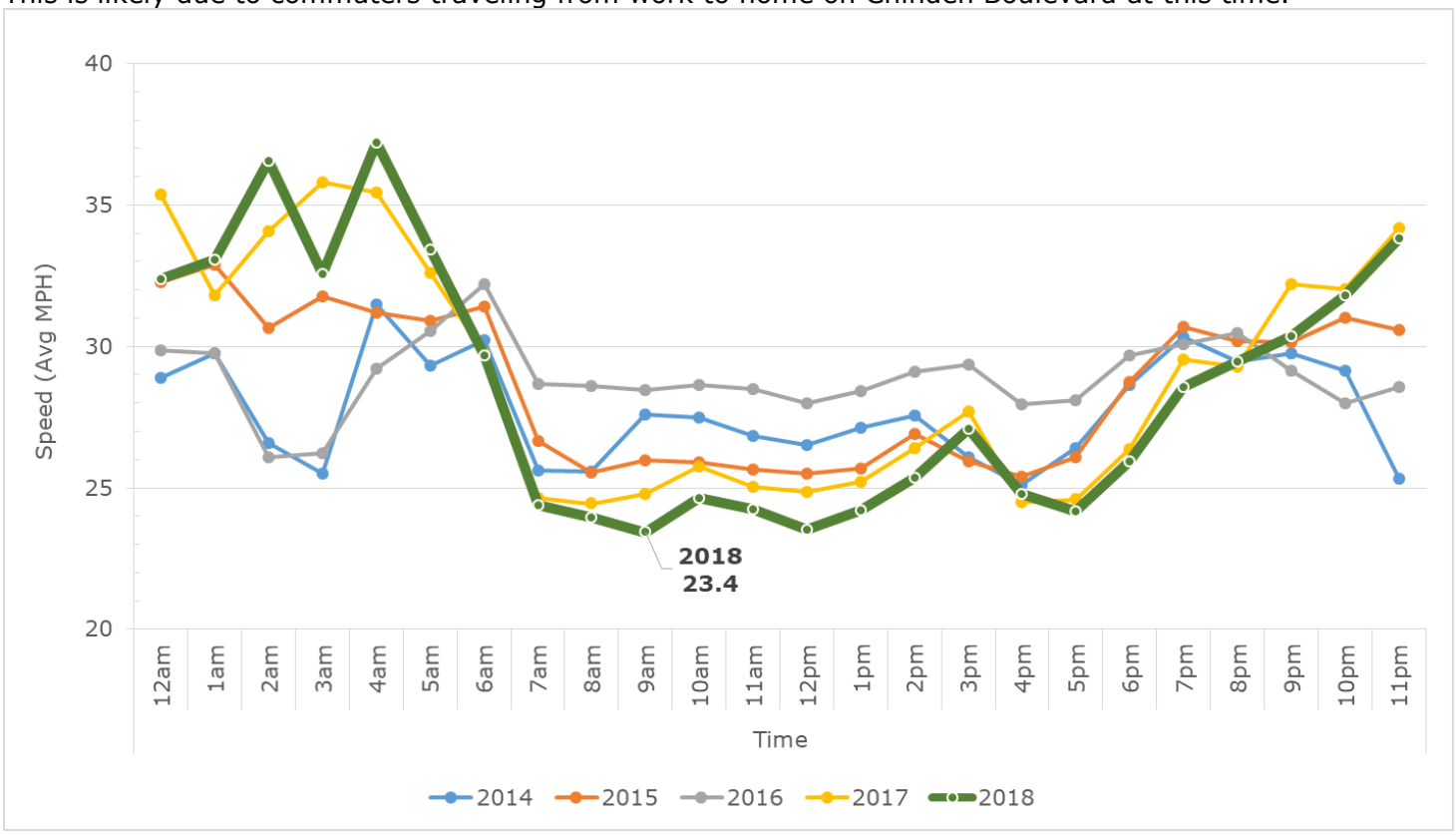

Figure 28: US 20/26 (Glenwood Street to I-184) Eastbound, Average Weekday Speeds (2014 – 2018)

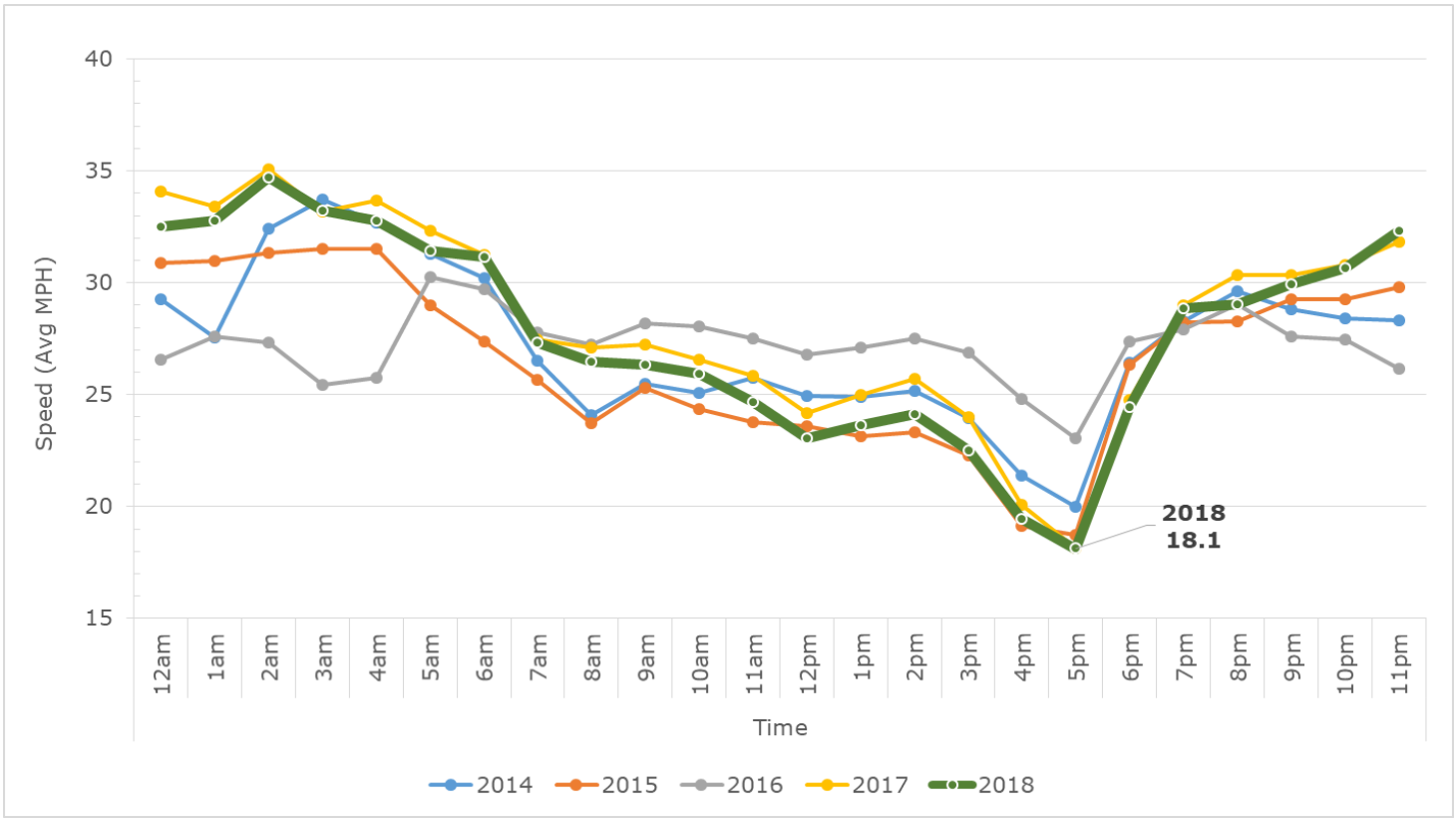

Figure 29: US 20/26 (I-184 to Glenwood Street) Westbound, Average Weekday Speeds (2014 – 2018)

US 20/26 (Front and Myrtle Streets): I-184 to Broadway Avenue

The section of US 20/26 through the urban center of the City of Boise tends to see a speed decrease during the AM peak hours that continues until after peak PM hours in the eastbound direction and a gradual decrease until reaching its slowest speeds at 4 pm in the westbound direction (Figures 30 and 31). The highway in this section is divided in to two separate one-way thoroughfares providing access to downtown Boise. The fluctuations in speed are likely due to an increased volume during typical business hours and typical commute patterns of eastbound in the morning and westbound in the evening.

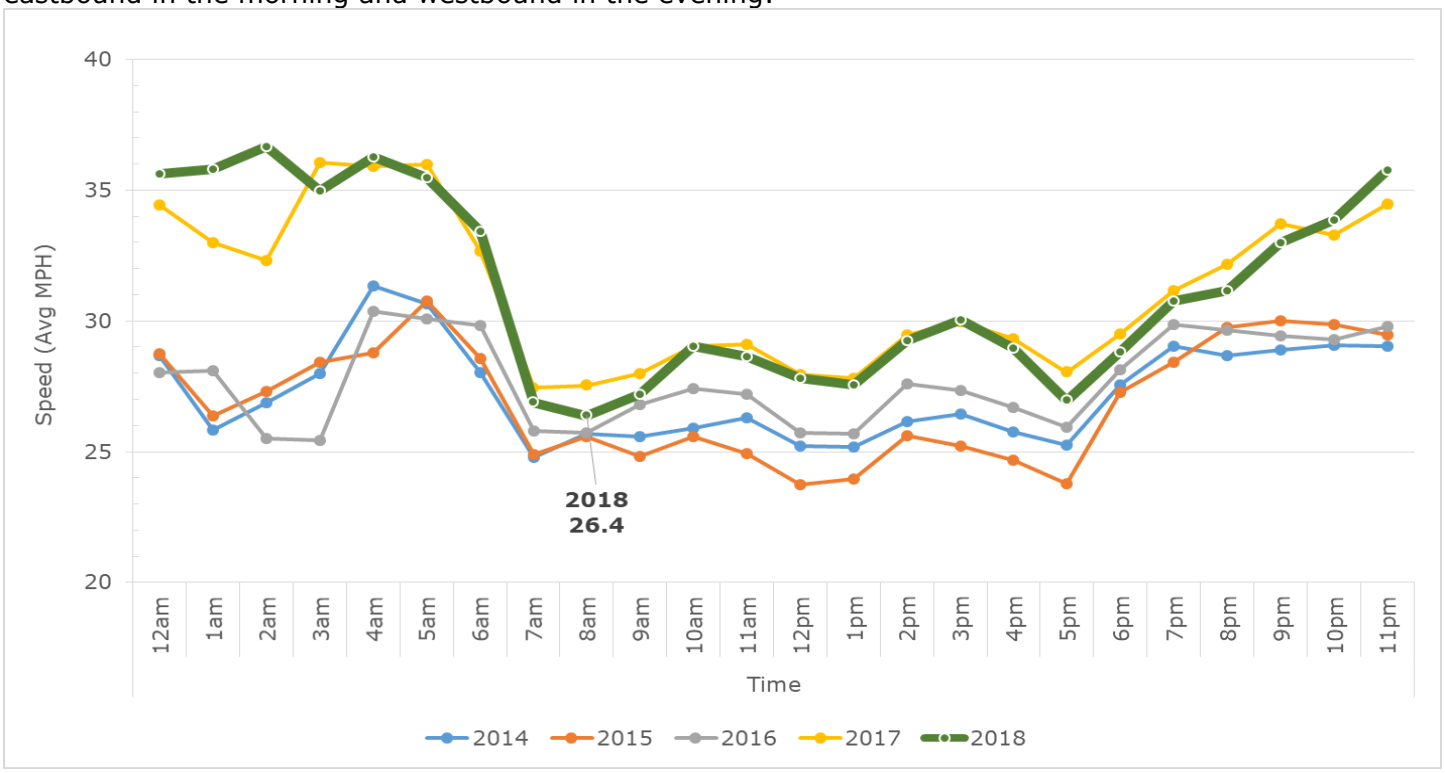

Figure 30: US 20/26 (I-184 to Broadway Avenue via Myrtle Street) Eastbound, Average Weekday Speeds (2014 – 2018)

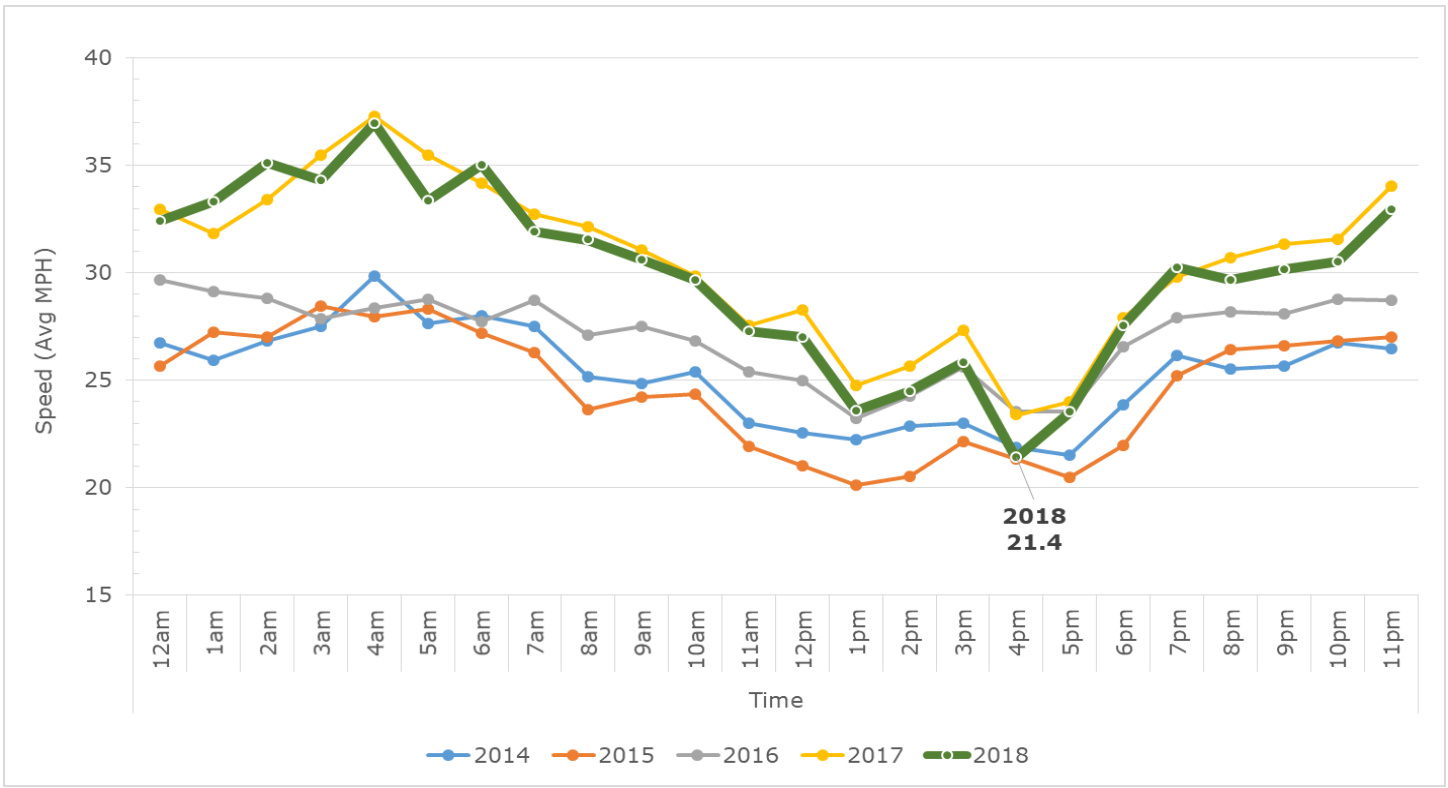

Figure 31: US 20/26 (Broadway Avenue to I-184 via Front Street) Westbound, Average Weekday Speeds (2014 – 2018)

US 20/26 (Broadway Avenue): Myrtle/Front Streets to I-84

US 20/26 (Broadway Avenue) from Front/Myrtle Streets to I-84 sees a slight drop in speeds from 8 am to 5 pm (Figures 32 and 33). There are minor slowdowns along the roadway during peak travel hours which is likely due congestion caused by commuters headed to some of the area's larger employers – St. Luke's Regional Medical Center and Boise State University. Nevertheless, this section of roadway doesn't seem to be as heavily impacted by the morning and evening commute as other corridors in the system.

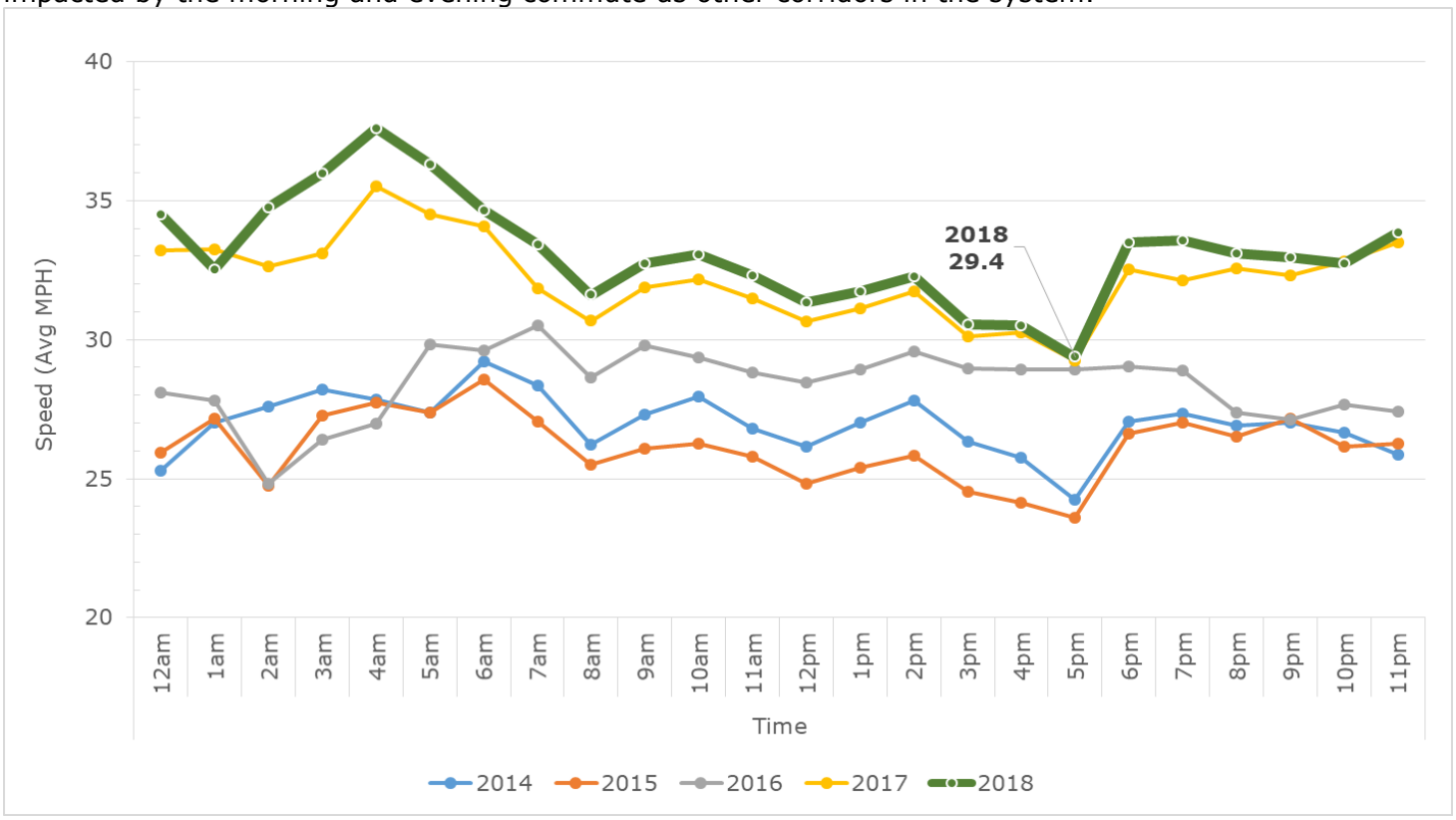

Figure 32: US 20/26 (Myrtle Street to I-84) Southbound, Average Weekday Speeds (2014 – 2018)

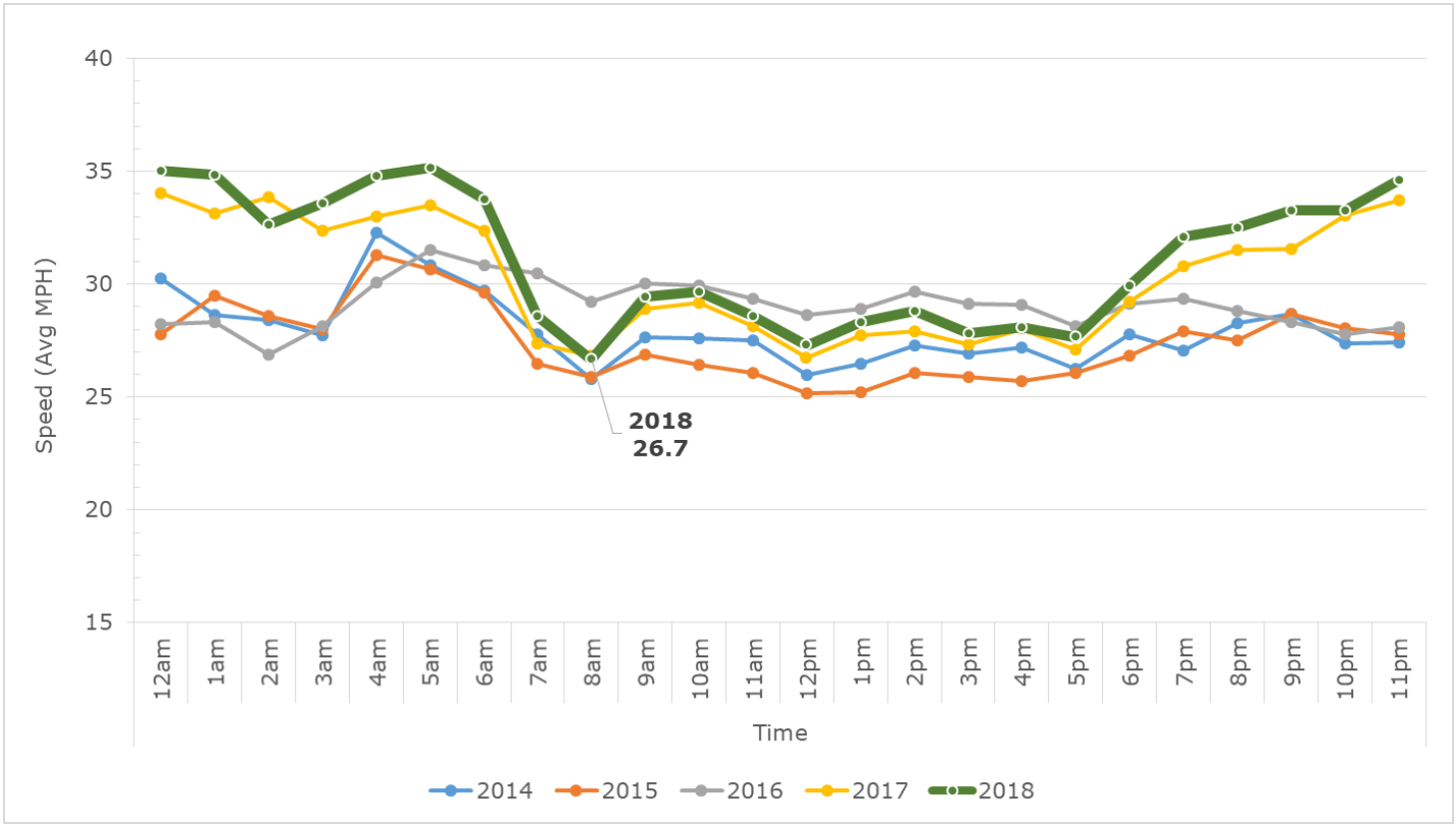

Figure 33: US 20/26 (I-84 to Front Street) Northbound, Average Weekday Speeds (2014 – 2018)

US-20/26 Congestion Analysis and Congestion Mitigation Strategies

US 20/26 is a main east/west thoroughfare in Ada and Canyon Counties. The corridor has capacity issues, high volume intersections, access management issues, and areas with heavy commercial/industrial land use, all of which contribute to congestion throughout the length of the corridor (Figure 34). COMPASS has identified a mix of congestion mitigation stratgies to apply on this complicated corridor. Programmed and planned projects are highlighted in Table 15.

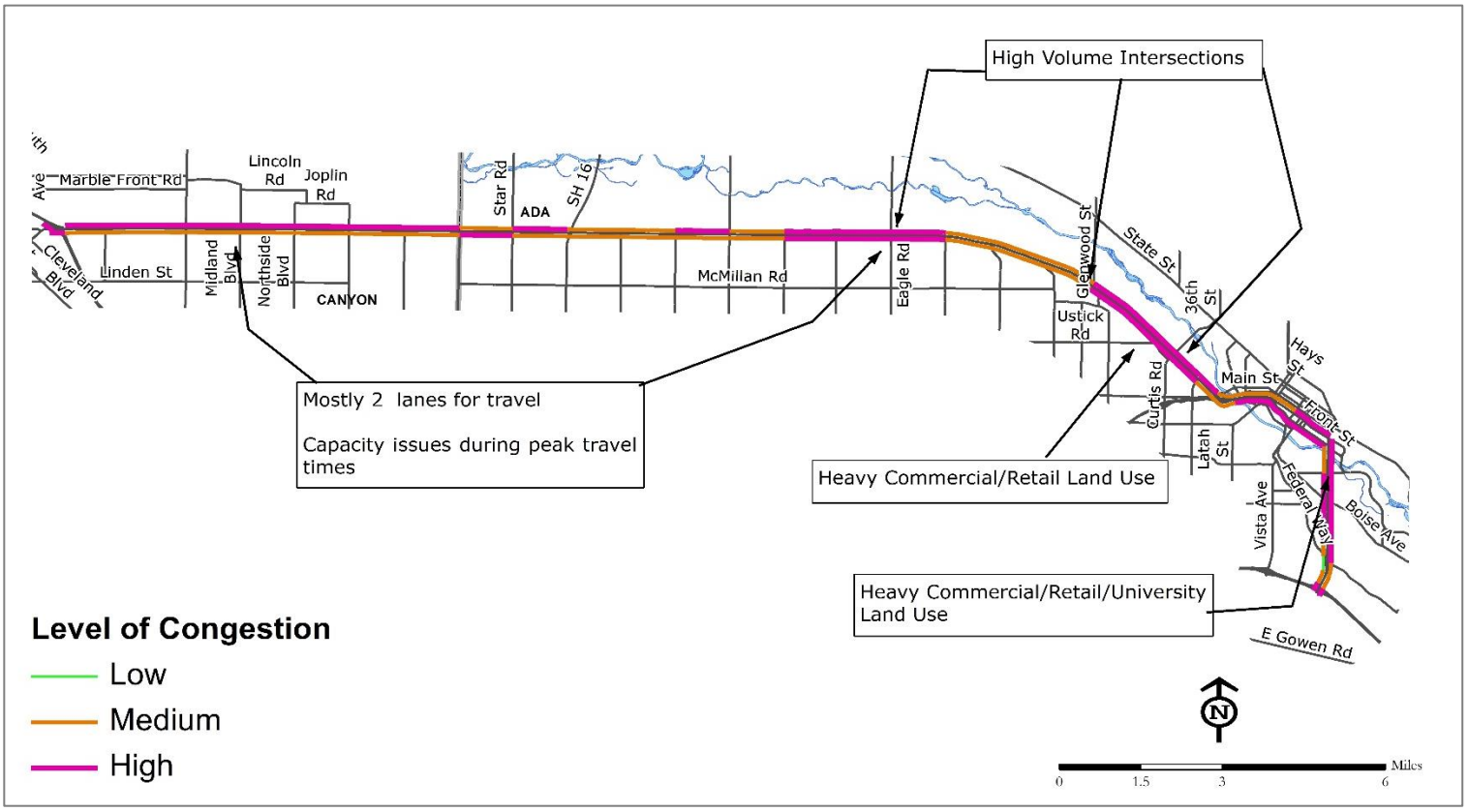

Figure 34: US 20/26 Levels of Peak Hour Congestion and Causes of Congestion (2018)

Table 15: US 20/26 Congestion Mitigation Projects

Strategy	Programmed Projects (FY2019-2023)	Planned Funded Projects (FY2024-2040)	Planned Unfunded Projects
Travel Demand Management	✓ ACHD Commuteride ✓ Pedestrian improvements from I-84 to Middleton Road		
Traffic Operations Improvements/Intelligent Transportation Systems (ITS)	✓ Intersection improvements in Ada and Canyon Counties	✓ Intersection improvements in Ada and Canyon Counties	
Public Transportation Improvements			✓ Planned new and extended services
Road Capacity	✓ Widening from 2 to 4 lanes from Star Road to Eagle Road ✓ Widening from 4 to 6 lanes from I-84 to Smeed Parkway and 2 to 6 lanes from Smeed Parkway to Middleton Road	✓ Widening from 4 to 6 lanes from Linder Road to Eagle Road ✓ Widening from 2 to 4 lanes from Middleton Road to Star Road	✓ Widening from 4 to 6 lanes from Middleton Road to Linder Road

State Highway 55 (Eagle Road)

State Highway 55 (Eagle Road) Traffic Volume, 2014 – 2018

State Highway 55 (Eagle Road) serves as one of the main north/south corridors in the Treasure Valley and includes some of the highest volume intersections in the State of Idaho. Over 40,000 vehicles per day cross the north channel of the Boise river (Figure 35) The highway experienced moderate growth between 2014 and 2018 where it crosses the Boise River just south of State Highway 44 (Table 16).

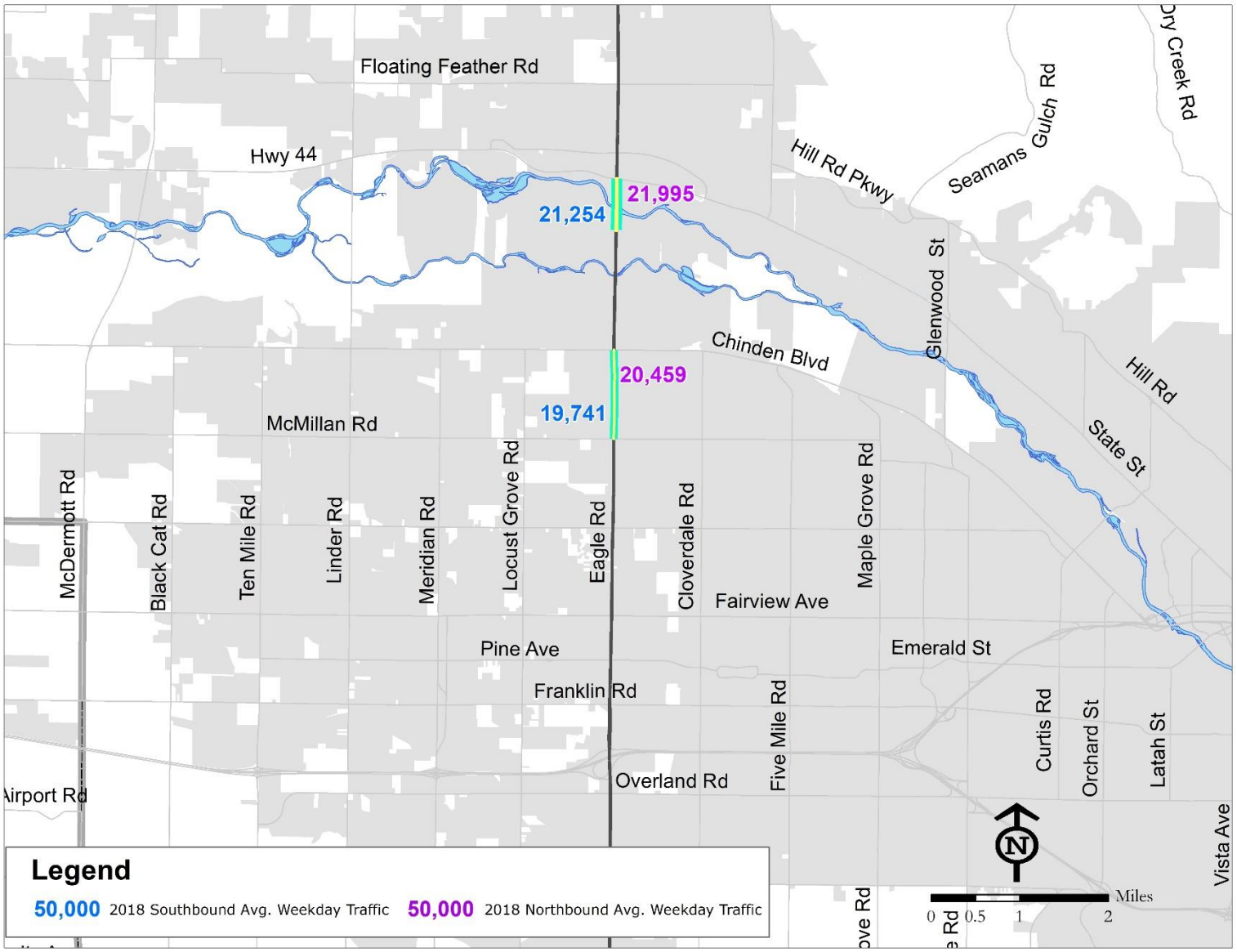

Figure 35: State Highway 55 (Eagle Road), Annual Average Weekday Volumes (2018)

Table 16: State Highway 55 (Eagle Road), Average Annual Weekday Traffic Volumes (2014-2018)

Location	Direction	2014	2015	2016	2017	2018	Annual Growth Rate
0.3 miles s/o SH 44 (River Crossing)	North	19,654	20,075	20,881	21,325	21,995	3%
0.3 miles s/o SH 44 (River Crossing)	South	18,787	19,153	20,299	20,459	21,254	3%
n/o Sedona St	North	18,994	19,219	19,940	20,073	20,459	2%
n/o Sedona St	South	18,741	18,986	19,655	19,503	19,741	1%

Source: Automatic Traffic Recorders maintained by ITD

State Highway 55 (Eagle Road) Speed Profiles

State Highway 55 (Eagle Road) experiences a steady decrease in speeds throughout the workday (Figures 36 and 37). The slowest speeds are during afternoon in the northbound direction and the 5 pm hour for the southbound direction. These dips are telling signs that this corridor serves both as a commuter corridor as well as a commercial corridor. The speed profile has remained fairly consistent throughout the five-year period despite significant development activity along the corridor.

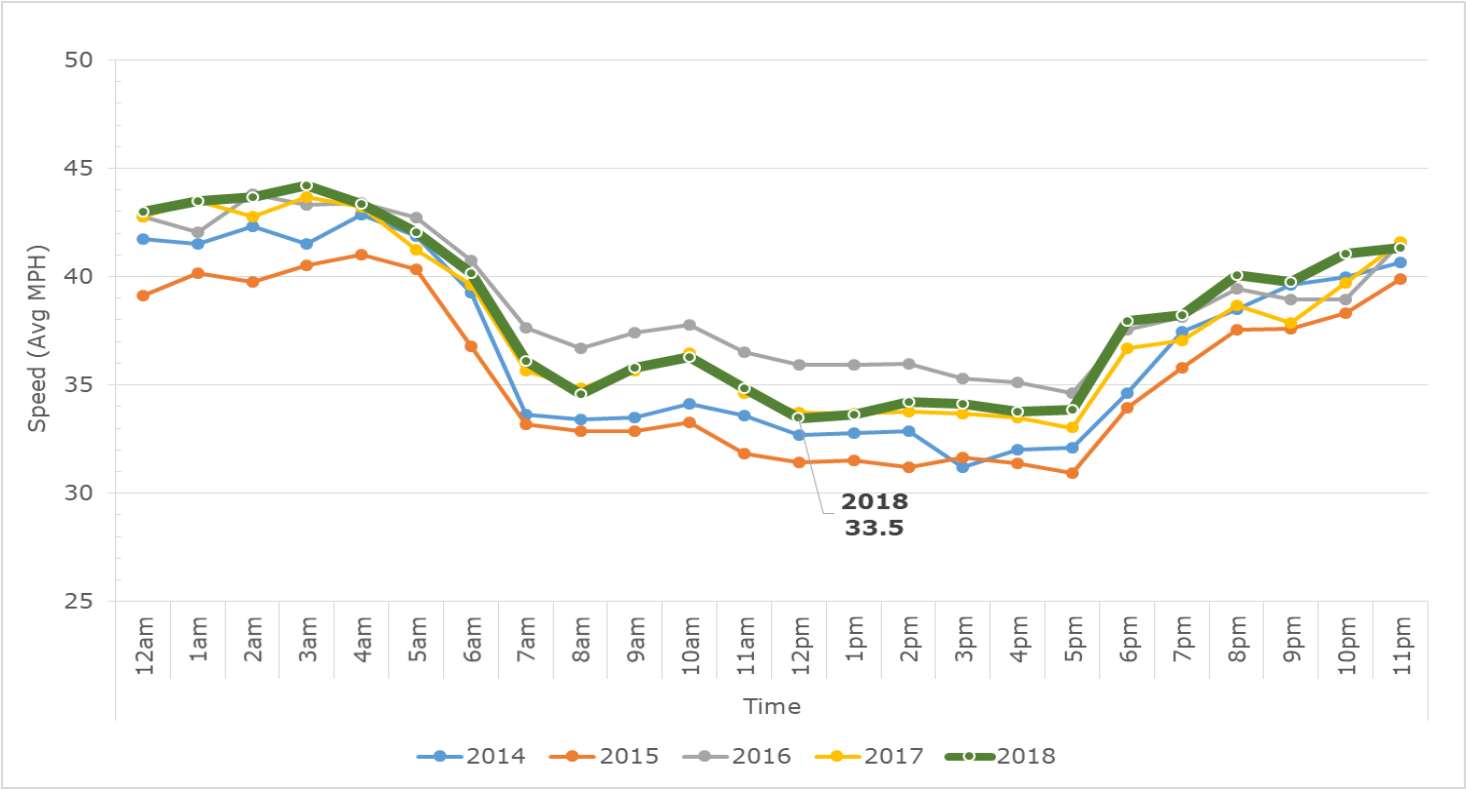

Figure 36: State Highway 55 (Eagle Road) Northbound, Average Weekday Speeds (2014 – 2018)

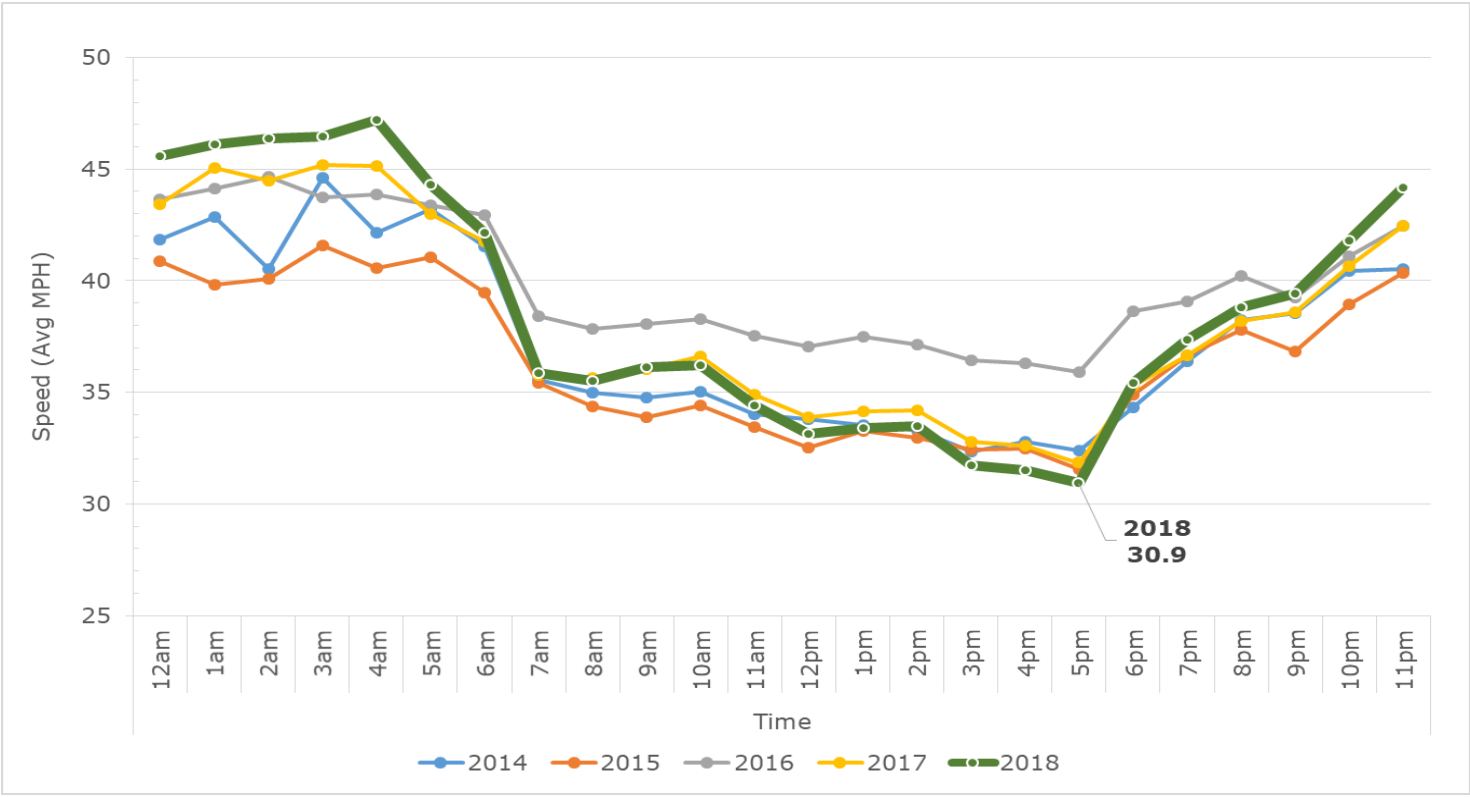

Figure 37: State Highway 55 (Eagle Road) Southbound, Average Weekday Speeds (2014 – 2018)

State Highway 55 (Eagle Road) Congestion Analysis and Congestion Mitigation Strategies

The State Highway 55 (Eagle Road) corridor experiences high levels of congestion caused by high traffic volumes, a variety of land uses, high volume intersections, a lack of public transportation services, and access management issues (Figure 38). Programmed and planned projects are highlighted in Table 17.

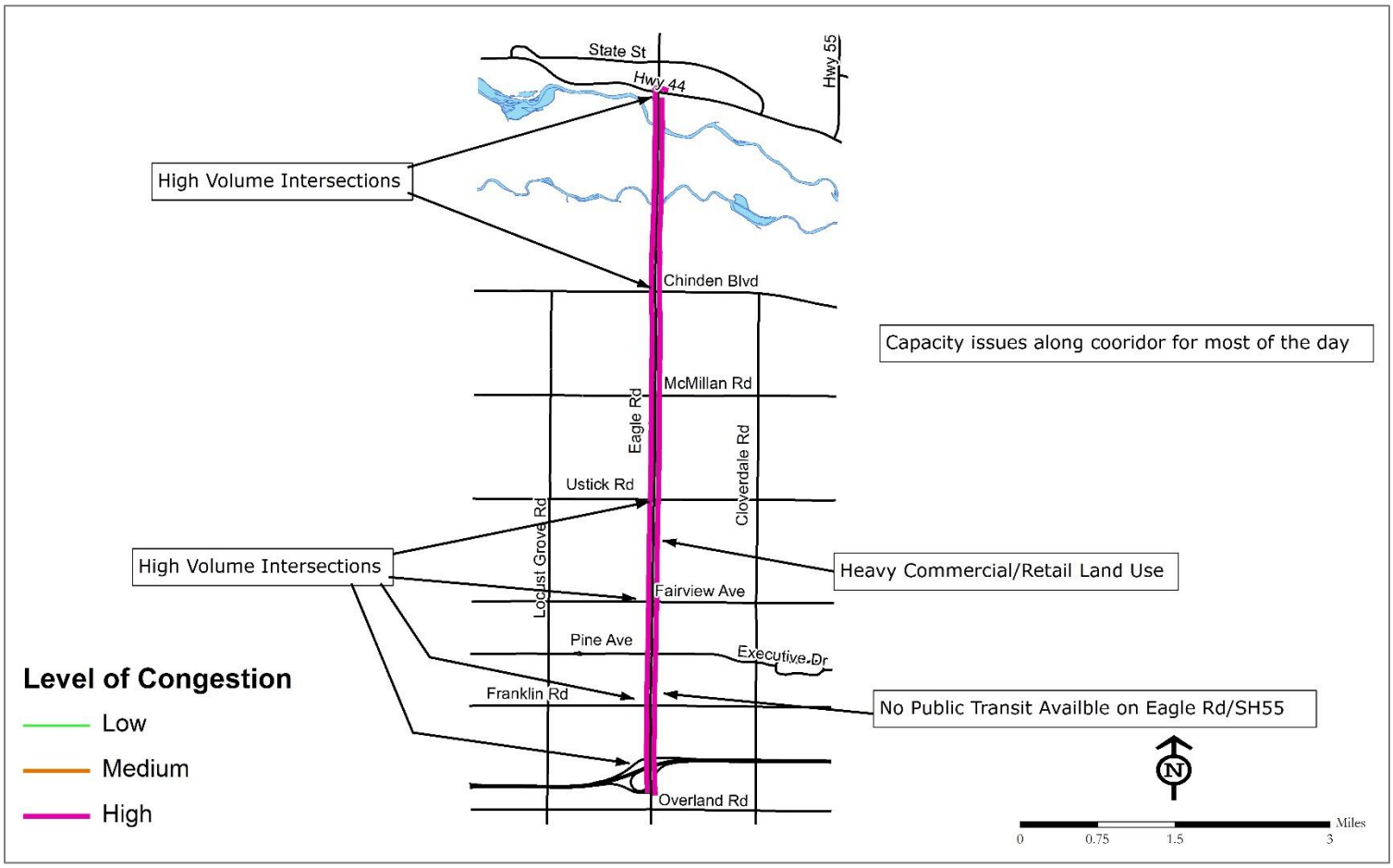

Figure 38: State Highway 55 (Eagle Road) Levels of Peak Hour Congestion and Causes of Congestion (2018)

Table 17: State Highway 55 (Eagle Road) Congestion Mitigation Projects

Strategy	Programmed Projects (FY2019-2023)	Planned Funded Projects (FY2024-2040)	Planned Unfunded Projects
Travel Demand Management	✓ Bike and pedestrian bridge over north channel of the Boise River ✓ ACHD Commuteride ✓ Pedestrian improvements from Franklin Road to Pine Avenue		
Traffic Operations Improvements/Intelligent Transportation Systems (ITS)	✓ Signal timing device upgrade		
Public Transportation Improvements			✓ Planned new and extended services
Road Capacity	✓ Add one lane southbound from River Valley Street to Franklin Road		

State Highway 55 (Karcher Road)

State Highway 55 (Karcher Road) Change in Traffic Volume and Travel Time, 2014 - 2018

State Highway 55 (Karcher Road) is the busiest near the I-84 interchange (Figure 39). State Highway 55 (Karcher Road) has seen its greatest increase in traffic volumes just south of Lowell Road before crossing the Snake River (Table 18). Traffic volume growth rates were moderate closer to the City of Nampa.

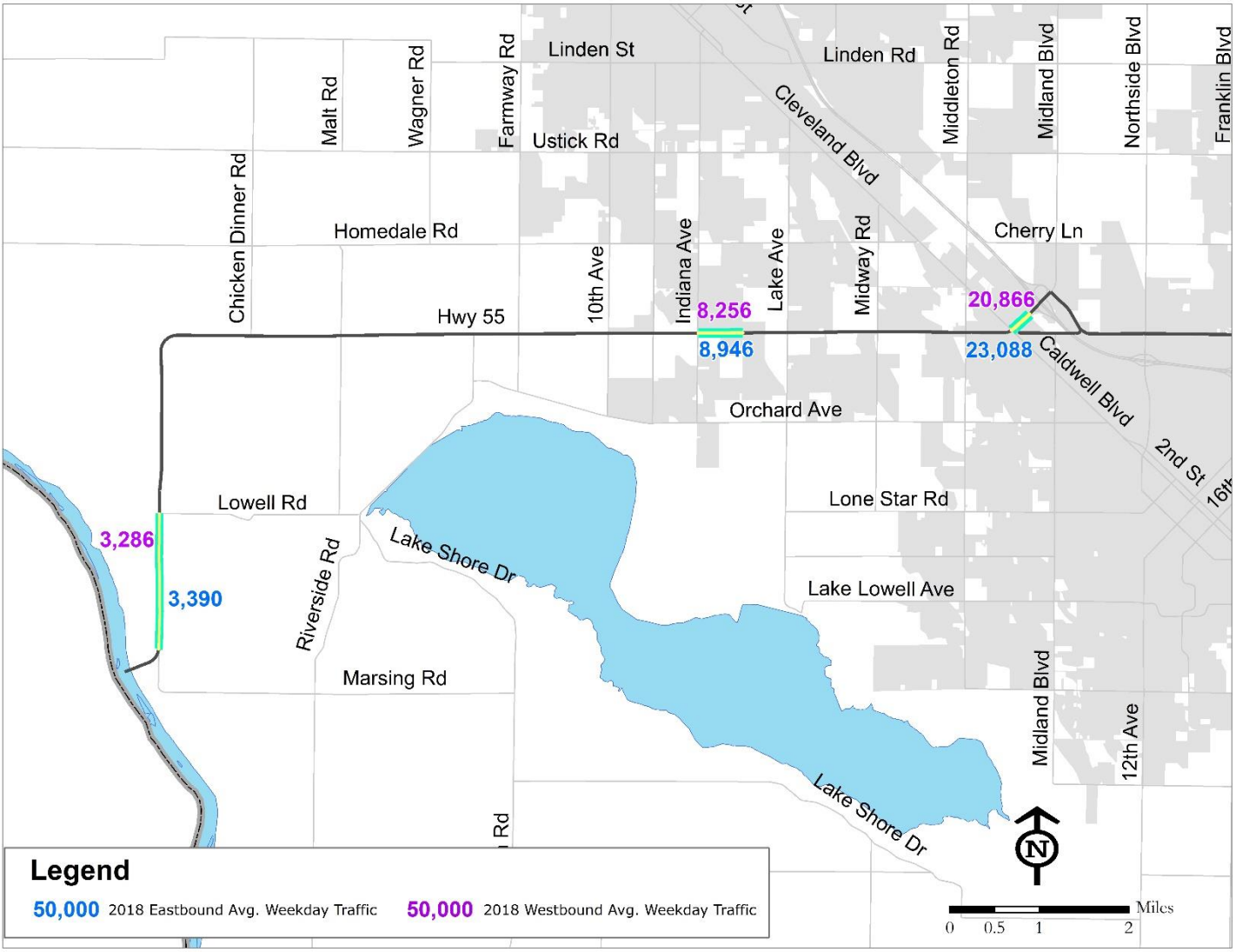

Figure 39: State Highway 55 (Karcher Road) Annual Average Weekday Volumes (2018)

Table 18: State Highway 55 (Karcher Road) Average Annual Weekday Traffic Volumes (2014-2018)

Location	Direction	2014	2015	2016	2017	2018	Annual Growth Rate
s/o Lowell Rd	South	2,831	2,929	3,093	3,202	3,286	4%
s/o Lowell Rd	North	2,895	3,015	3,170	3,235	3,390	4%
0.14 miles n/o I-84B (Caldwell-Nampa Blvd)	Northeast	20,536	20,807	22,673	22,146	23,088	3%
0.25 miles e/o Indiana Ave	East	8,471	7,254	8,272	8,149	8,946	2%
0.14 miles n/o I-84B (Caldwell-Nampa Blvd)	Southwest	19,386	19,766	21,333	20,399	20,866	2%
0.25 miles e/o Indiana Ave	West	7,919	7,050	8,005	7,404	8,256	1%

Source: Automatic Traffic Recorders maintained by ITD

State Highway 55 (Karcher Road) Speed Profiles

State Highway 55 (Karcher Road) experiences normal morning and evening peak hour travel delays. There is also a noticable drop in average speed throughout the workday hours (Figures 40 and 41). Speed profiles from 2014-2018 are relatively consistent, except for 2015, where speeds were lower during daytime hours.

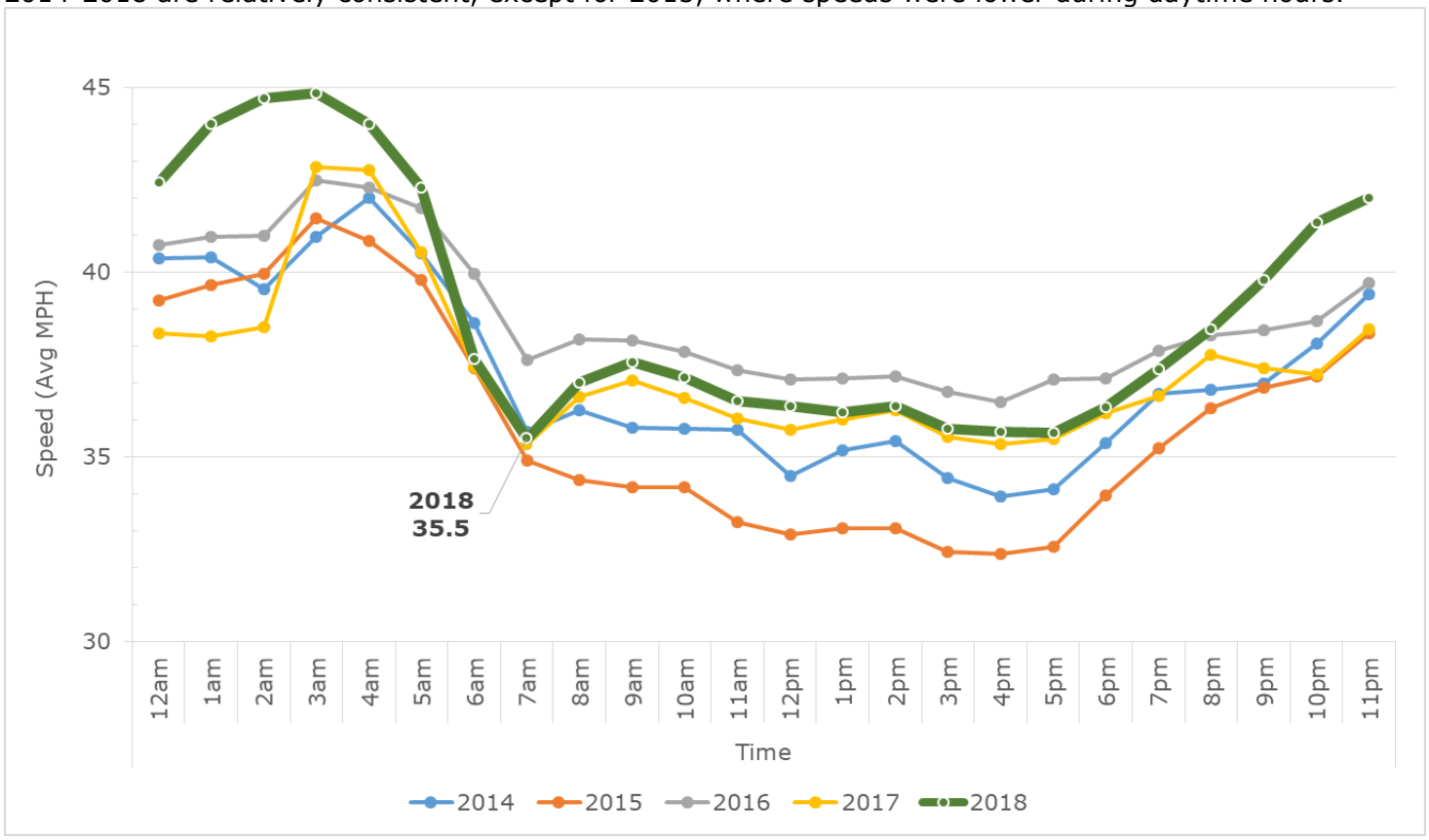

Figure 40: State Highway 55 (Karcher Road) Eastbound, Average Weekday Speeds (2014 – 2018)

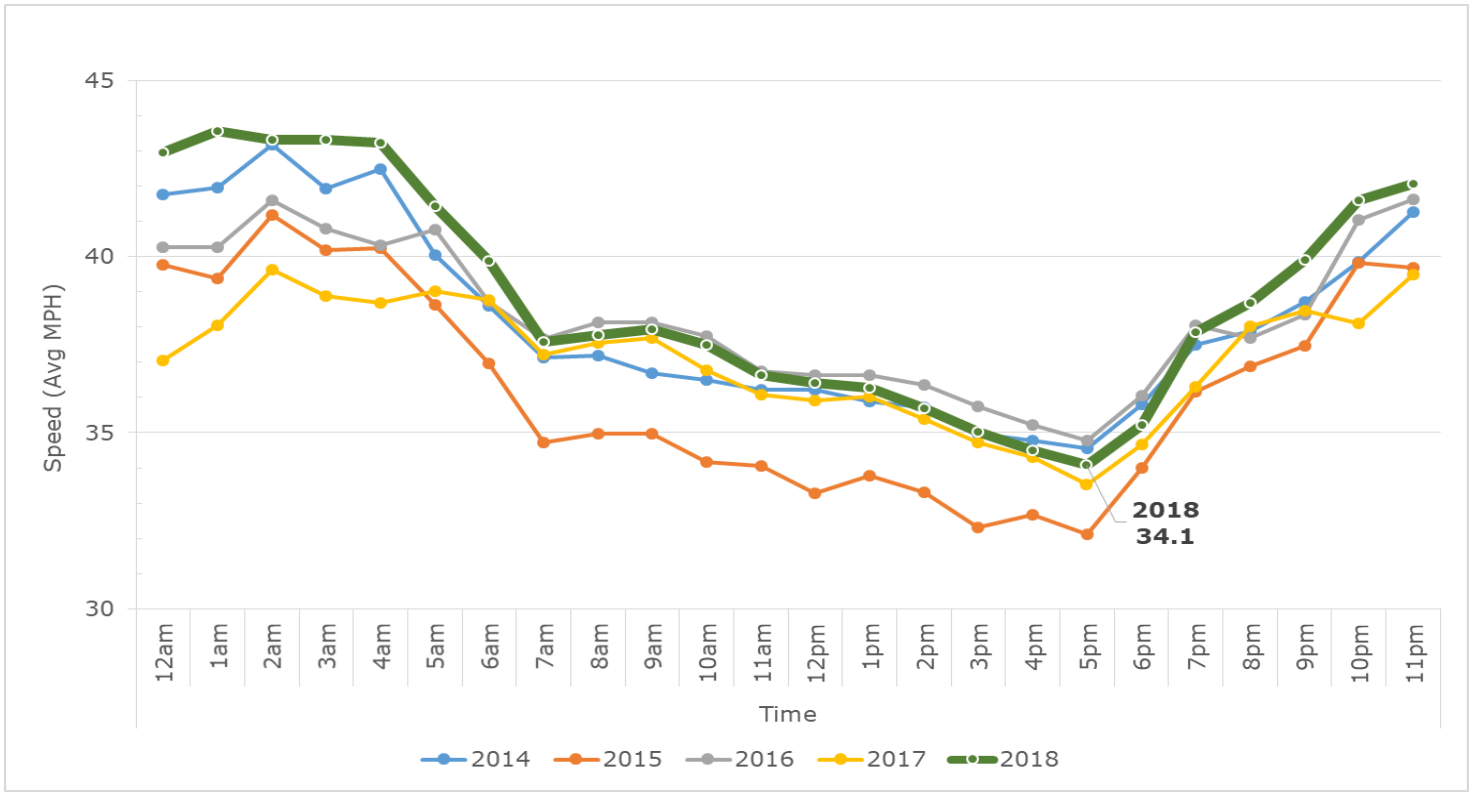

Figure 41: : State Highway 55 (Karcher Road) Westbound, Average Weekday Speeds (2014 – 2018)

State Highway 55 (Karcher Road) Congestion Analysis and Congestion Mitigation Strategies

State Highway 55 (Karcher Road) experiences high peak hour congestion mainly in the urban areas surrounding the City of Nampa (Figure 42). The issues stem from a reduction in travel lanes from four to two at Middleton Road, commercial/retail land uses, and high volume intersections at Caldwell Boulevard and the I-84 interchange. Programmed and planned projects are highlighted in Table 19.

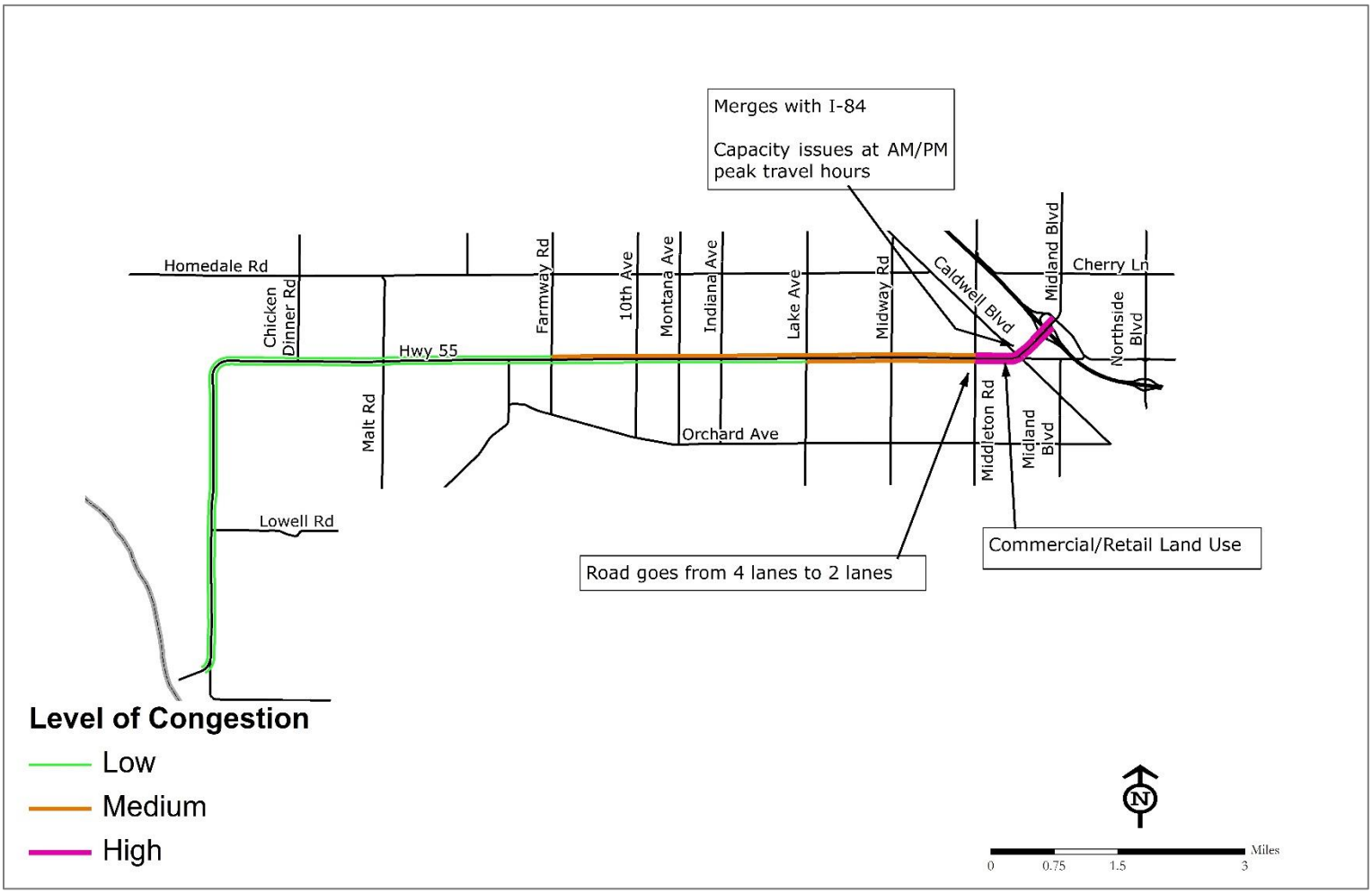

Figure 42: State Highway 55 (Karcher Road) Levels of Peak Hour Congestion and Cause of Congestion (2018)

Table 19: State Highway 55 (Karcher Road) Congestion Mitigation Projects

Strategy	Programmed Projects (FY2019-2023)	Planned Funded Projects (FY2024-2040)	Planned Unfunded Projects
Travel Demand Management			
Traffic Operations Improvements/Intelligent Transportation Systems (ITS)	✓ Intersection improvements at State Highway 55 and Florida Avenue		
Public Transportation Improvements			✓ Planned services
Road Capacity		✓ Widen from 2 to 4 lanes from Indiana Avenue to Middleton Road	✓ Widen from 2 to 4 lanes from Pear Lane to Indiana Avenue