Testimony of John A. Charles, Jr.
President & CEO, Cascade Policy Institute
Before the Capital Construction Subcommittee
of the Joint Ways and Means Committee
Regarding HB 5005

April 12, 2019

Members of the subcommittee, my name is John Charles and I am President and CEO of Cascade Policy Institute, a nonpartisan policy research organization.

Most witnesses ask you to spend money. I am here asking you to save money – by **deleting the Governor's request for $27.5 million in lottery-backed bonds for TriMet's planned light rail line** to Bridgeport Village mall near Tualatin.

It's important to note that HB 5005 is actually the first part of a two-part request for this project. As Ms. Gabriel stated in her April 5 briefing, the Governor will be asking for an additional $125 million of bond revenue in the next biennium, so you should really think of this as an appropriation of **$152.5 million**.

I encourage you to reject the request because TriMet has a consistent record of over-promising and under-performing on all its capital construction projects, as detailed below. You should stop rewarding that kind of behavior.

Analysis of the SW Corridor Project

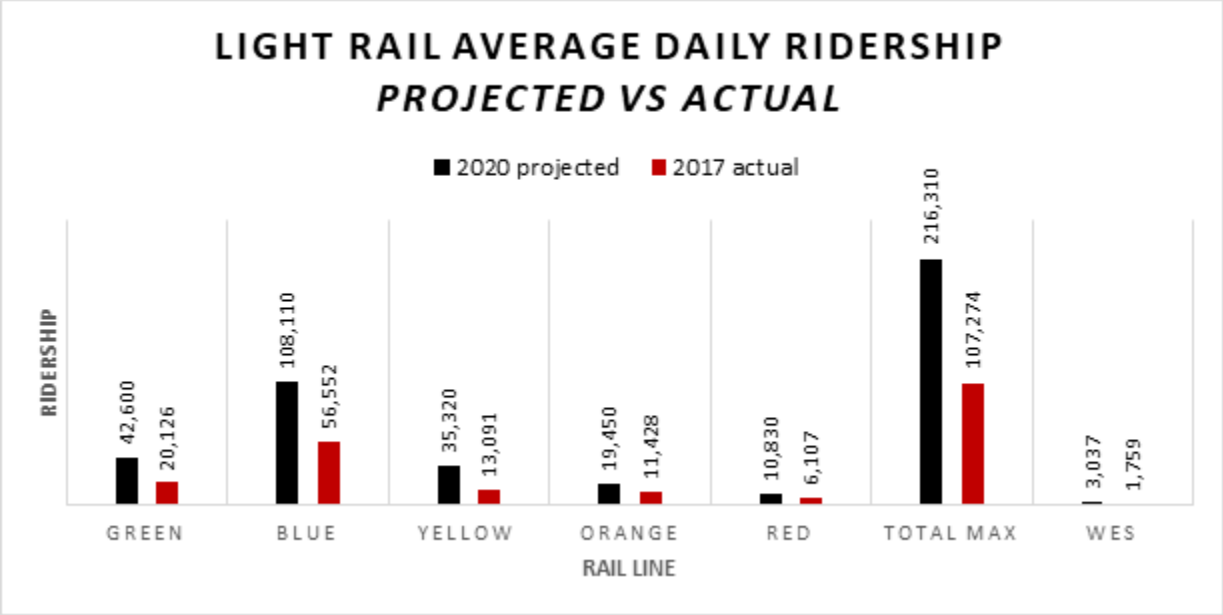
TriMet makes two primary claims regarding this light rail line. First, it will attract 43,000 average weekday riders by 2035. Second, it will provide a "reliable, fast travel option" between Bridgeport Village and Portland.

Neither of these claims is plausible.

TriMet Ridership projections are always inflated

TriMet has a 40-year track record of making ridership forecasts. They have been consistently wrong, and always on the high side. As **Figure 1** shows, actual ridership has never even reached 60% of projected ridership on a specific rail line. In 2017 total average weekday ridership was ***less than half*** the predicted ridership for MAX in 2020.

Figure 1



Sources: 2002 Green Line Environmental Impact Statement, 2009 Orange Line Environmental Impact Statement, TriMet 2017 monthly ridership reports. For 2020 Orange Line forecast, the difference between the 2016 and 2030 forecasts were divided by 14, multiplied by 4, and then added to 2016 forecast. Additionally, due to 2003 expansion of the Red Line, data was gathered from the original stops between Gateway and Portland International Airport.

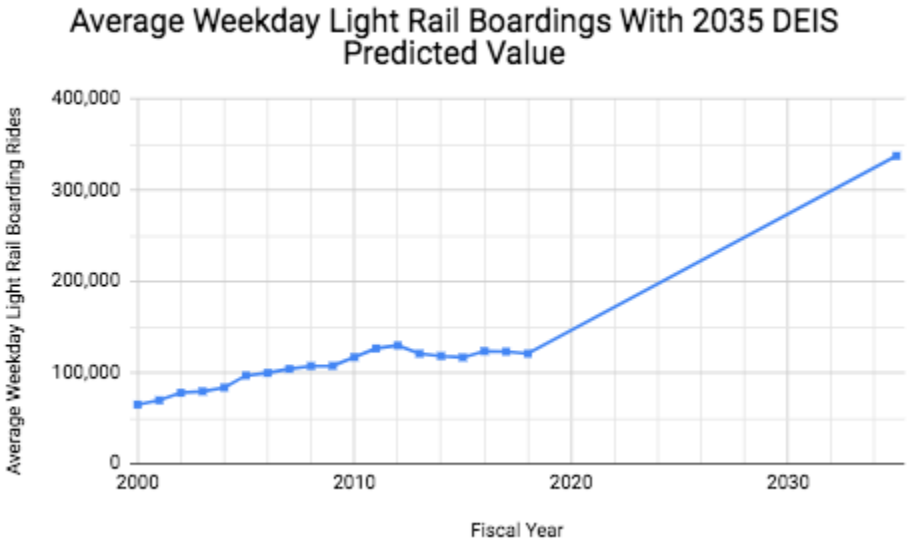
EIS ridership predictions for 2035: Given these consistent forecasting errors, the SW Corridor DEIS prediction that MAX average weekday ridership will total 317,200[1] in 2035 is not credible. Ridership would have to overcome decades of underperformance and triple between 2017 and 2035 **(Figure 2).**

To put this in perspective, average weekday light rail ridership has increased by 85.85% between fiscal year 2000 and fiscal year 2018 up until the month of May – also a span of 18 years. Four rail lines were implemented between 2000 and 2018 while the Southwest Corridor DEIS bases its estimation on the implementation of only one light rail line between 2018 and 2035.

Current light rail ridership has not been increasing over recent years; it peaked in 2012 and has been dropping steadily since. This undermines the plausibility of the estimated number of weekday boardings in 2035.

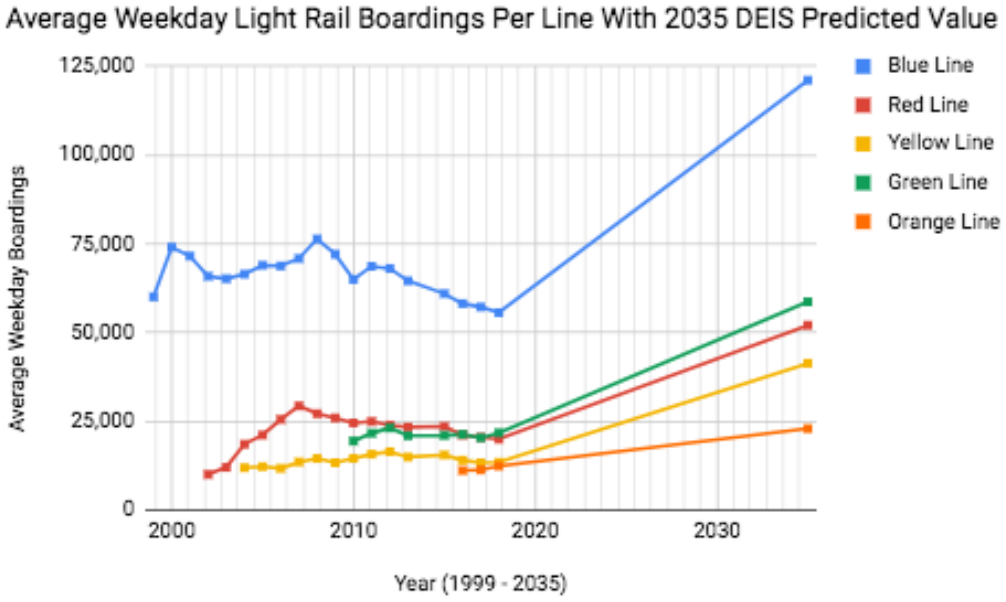
[1] DEIS, page 3-13.

Figure 2



The DEIS predicts that weekday boardings across all lines will more than double, even though individual line trends are either decreasing or plateauing, demonstrated in **Figure 3**.

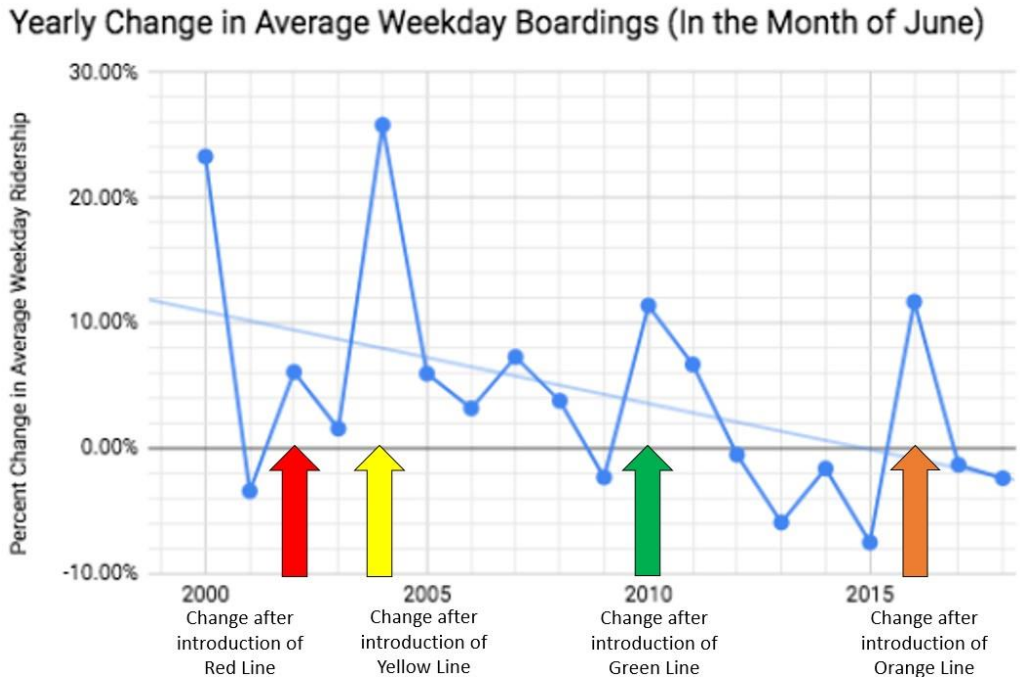
Figure 3



The percent yearly change (**Figure 4**) in weekday ridership has been decreasing from year to year, and recently has been dipping into the negative percentage range.

A pattern has developed which shows percent change drastically increasing the year after a new line opened. After that initial first year the percent change tends to decrease up until the implementation of the next line. When a new light rail line is introduced, its percent increase in boardings is marginal – new light rail lines are adding fewer new riders.

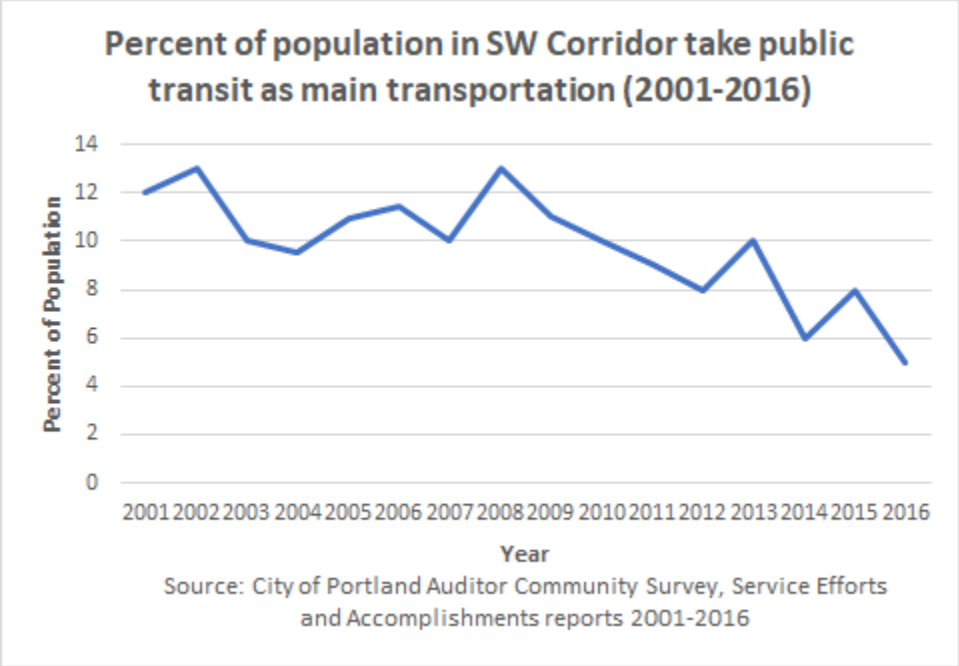
Figure 4



There is little hope that the SW Corridor project will reverse this trend because transit ridership in that corridor has dropped by 50% over the past two decades.

We know about this decline because up until 2017, the City of Portland Auditor conducted annual telephone surveys, known as the Community Survey and Service Efforts and Accomplishments reports. Those surveys recorded a steady decline in the percent of individuals in the Southwest Corridor who self-reported public transit as their main mode of transportation, as seen in **Figure 5**.

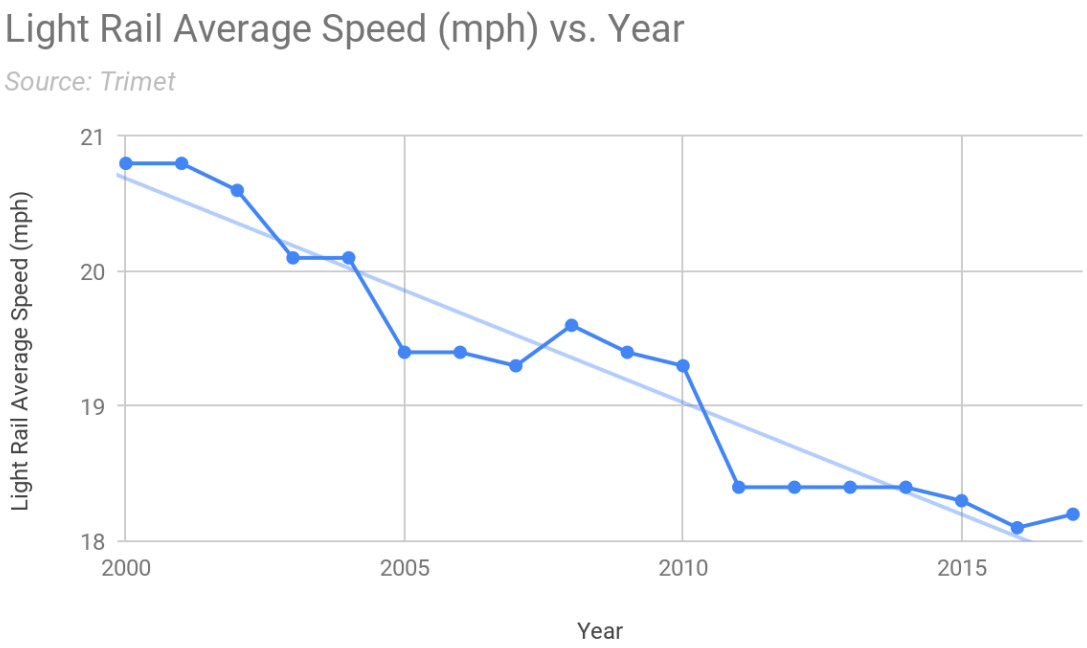
Figure 5



Based upon these patterns, the Southwest Corridor project is a very poor investment of lottery-backed bond dollars.

<u>Light rail is neither fast nor reliable</u>: TriMet likes to promote the myth that light rail provides an antidote to traffic congestion because it has its own reserved right-of-way. However, notwithstanding this supposed advantage, the average speed of light rail has been declining for years – and was never very fast to begin with, as shown in **Figure 6.**

Figure 6

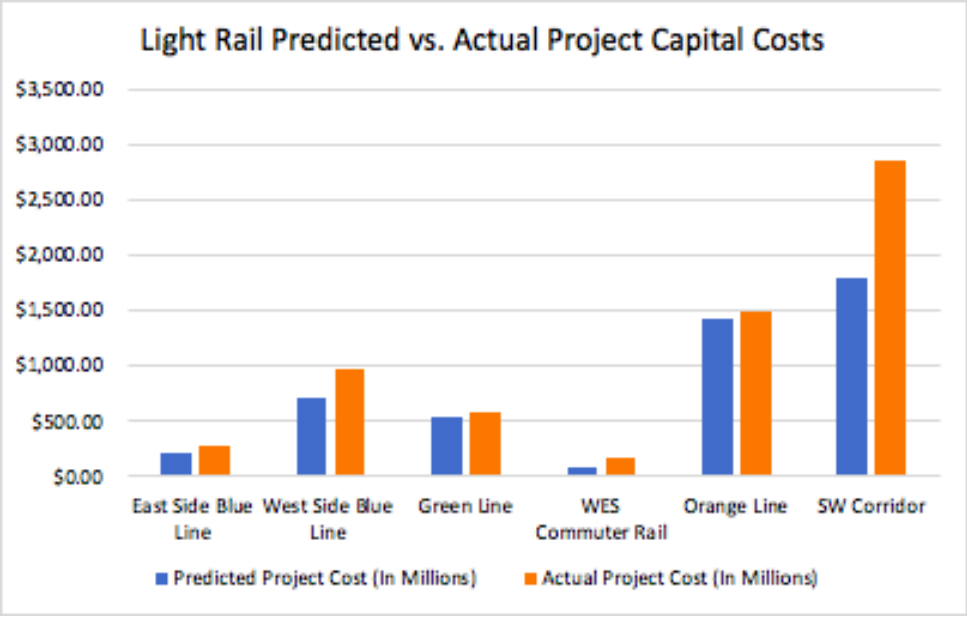


<u>Underestimated Capital Costs</u>

The draft EIS for this project estimates the total capital cost to be between $2.64 and $2.86 billion dollars in year-of-expenditure (2024) dollars. Past light rail projects have consistently underestimated costs in the projects' DEIS, SDEIS, or FEIS (**Figure 7**). The eastside Blue Line, westside Blue Line, Green Line, WES commuter rail, and Orange Line all demonstrate this.

The predicted capital cost of the Southwest Corridor project has already been increased by a billion dollars, from $1.8 billion in 2016 to its current prediction in 2019. If the pattern of higher actual capital costs on light rail projects continues, then the Southwest Corridor project capital cost will continue to increase throughout this process.

Figure 7



The estimated cost in 2016 for the Southwest Corridor project was 1.8 billion dollars. In 2018, the DEIS increased that estimate to $2.64 - $2.86 billion. This is an increase of $1.06 billion within a two-year timespan.

Frequency of Service

The Draft EIS for the Southwest Corridor Light Rail Project states that the through route configuration would include nine trains per hour traveling to downtown Tigard during peak periods in 2035, with headways as low as 6.7 minutes in between operation of trains[2].

These predictions are implausible given the performance of current light rail operations. Even the less ambitious projections of 7.5 minute headways for previous lines are currently nowhere close to being met.

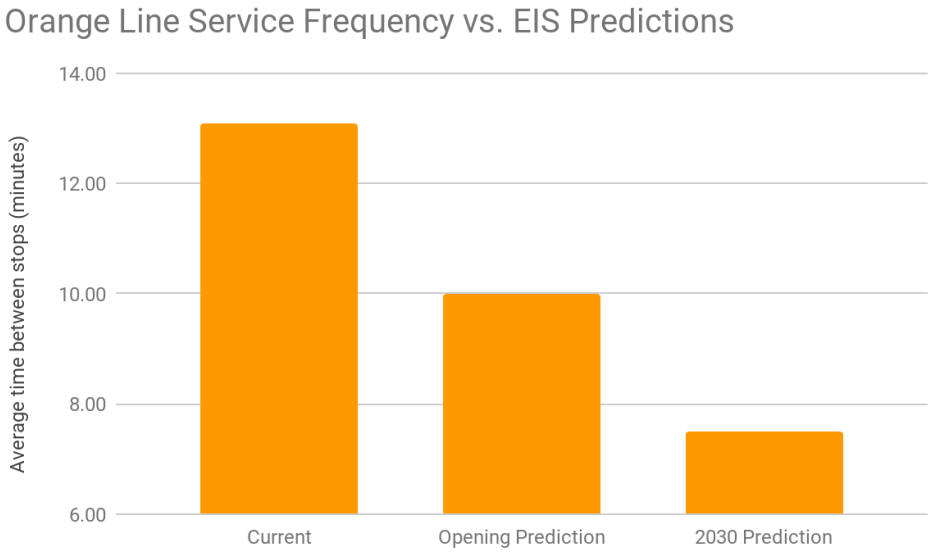
Light rail service operation has consistently fallen short of the frequencies promised in past environmental impact statements.

[2] Southwest Corridor Light Rail Project Draft Environmental Impact Statement, June 2018. Chapter 3, page 11.

The Orange Line EIS predicted that by 2030, trains along the corridor would operate every 7.5 minutes[3], requiring 8 trains per hour to stop during peak periods. In the opening year 2016, the Orange Line was intended to operate with 10-minute headways[4]. In 2018, that frequency was not met, with MAX schedules showing average weekday peak-hour headways of 13.1 minutes.

Figure 8 shows Orange Line headways during peak periods based on June 2018 schedules at the SE Park Ave MAX Station contrasted with earlier predictions of service frequency.

Figure 8



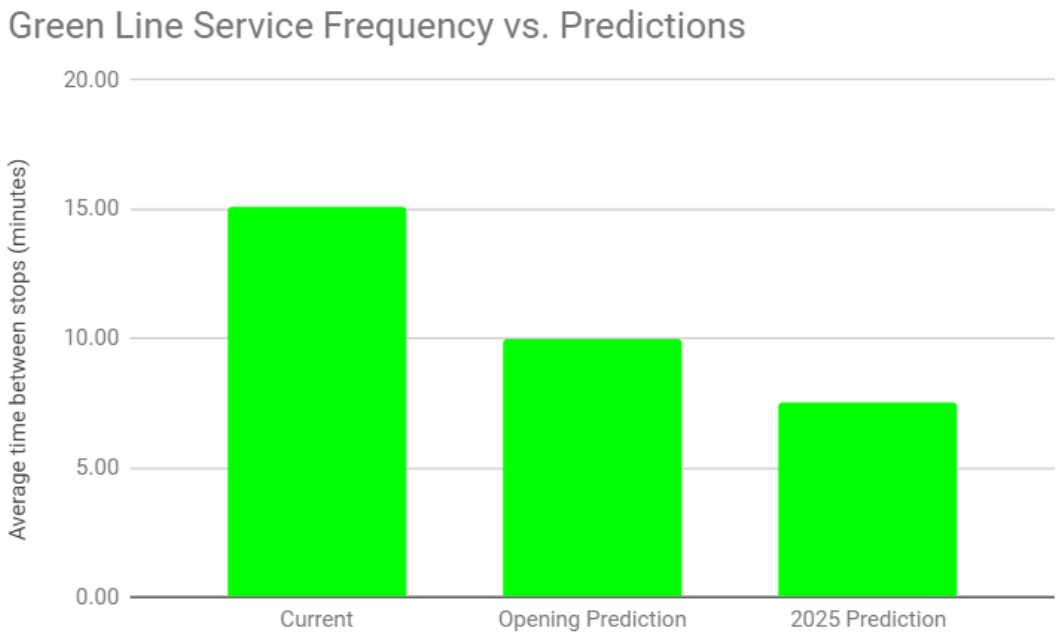
The Orange Line is especially important for the subcommittee to consider because in June 2007, the legislature approved $250 million in lottery-backed bond revenue for this line.

In similar fashion, TriMet promised FTA that the Green Line would operate every 7.5 minutes by 2025[5], but it has failed to live up even to promises of 10-minute headways in its opening year[6].

An FTA Before-and-After Study of the Green Line's performance stated that"[t]he project opened with 15-minute intervals throughout the day and 35-minute intervals in the evenings,"[7] in sharp contrast to initial projections. 2018 MAX schedules at Clackamas Town Center TC MAX Station confirm that the Green Line has been operating with an average of 15.1 minutes between stops, as shown in **Figure 9**.

[3] Portland-Milwaukie Light Rail Project Final Environmental Impact Statement, October 2010. Chapter 2, page 28.
[4] Portland-Milwaukie Light Rail Transit Project Full Funding Grant Agreement, October 2011. Attachment 1.
[5] South Corridor I-205/Portland Mall Light Rail Project Final Environmental Impact Statement, November 2004. Chapter 4, page 12.
[6] Green Line Light Rail Project Before-and-After Study, 2014. Federal Transit Administration. Page 6.
[7] Ibid.

Figure 9



MAX service frequency has consistently underperformed for nearly its entire history. The only MAX line that has been living up to its projections is the Red Line, with a much lower bar of 15 minute headways by 2015[8].

The 1991 SDEIS for the Westside Corridor Blue Line project stated that "[t]wo-car trains would operate every five minutes east of the Beaverton Transit Center"[9] by the year 2005; but in 2018, these trains only operate every 9.1 minutes.

Likewise, the Yellow Line EIS promised headways of 7.5 minutes during peak travel periods in 2020[10] and 10-minute headways in opening year 2005[11], but Yellow Line trains offer only half that level of service in 2018, with trains at N Prescott St Station operating every 15 minutes on average.

[8] MAX Extension to the Portland Airport Environmental Assessment, December 1998. Chapter 3, page 10.
[9] Westside Corridor Project Supplemental Draft Environmental Impact Statement, January 1991. Chapter 4, 1.
[10] North Corridor Interstate MAX Light Rail Project Final Environmental Impact Statement Executive Summary, October 1999. Section 3.1.2.
[11] North Corridor Interstate MAX Light Rail Project Final Environmental Impact Statement, October 1999. Chapter 1, page 2.

Travel Times

According to the EIS, light rail in the Southwest Corridor "would reduce the PM peak-hour in-vehicle transit travel time from Portland State University to Bridgeport Village from 38 minutes (via TriMet bus line 96 Tualatin Express) to 29 minutes with the Branched Route or 33 minutes with the Through Route."[12] This prediction is implausible given the track record of current MAX lines.

Table 1 shows the travel times between selected Orange Line stops according to TriMet MAX schedules in 2018 compared to EIS predictions for 2030.[13] Assuming 100% on-time performance, Orange Line travel times are currently 4.8 minutes longer on average than predicted in the Portland-Milwaukie Light Rail Project EIS.

Table 1

Orange Line			
Distance	South Corridor EIS Predicted Travel Time in 2030	Actual PM Peak Period Travel Time in 2018	Scheduled Stops (PM Peak-hour)
Pioneer Square to Milwaukie Park Ave	26	32	5:04 - 5:36
PSU to Milwaukie Park Ave	20	26	5:10 - 5:36
South Waterfront to Milwaukie Park Avenue	16	21	5:15 - 5:36
Pioneer Square to Lake Rd	24	29	5:04 - 5:33
PSU to Lake Rd	19	23	5:10 - 5:33
South Waterfront to Lake Rd	15	18	5:15 - 5:33

Similarly, Green Line has lagged behind in travel times, with actual travel times 4.7 minutes longer on average than predicted for 2025 in the South Corridor FEIS.[14] **Table 2** shows Green Line travel times compared to EIS predictions.

[12] Southwest Corridor Light Rail Project Draft Environmental Impact Statement, June 2018. Chapter 3, page 12.
[13] Portland-Milwaukie Light Rail Project Final Environmental Impact Statement, October 2010. Chapter 4, page 18.
[14] South Corridor I-205/Portland Mall Light Rail Project Final Environmental Impact Statement, November 2004. Chapter 4, page 14.

Table 2

Green Line			
Distance	South Corridor FEIS I-205 Year 2025 Predicted Travel Time	Actual PM Peak Period Travel Time in 2018	Scheduled Stops (PM Peak-hour)
Pioneer Square to Clackamas TC	38	43	5:08 - 5:51
PSU to Clackamas TC	42	48	5:03 - 5:51
Rose Quarter to Clackamas TC	30	33	5:18 - 5:51
Pioneer Square to Lents	31	36	5:08 - 5:44
PSU to Lents	35	41	5:03 - 5:44
Rose Quarter to Lents	23	26	5:18 - 5:44

Conclusion

An EIS by definition consists almost entirely of forecasts, most of which are destined to be wrong because predicting the future is difficult. However, when key forecasts are consistently skewed in the same direction for over 30 years, it suggests a troubling trend: that transit planners are deliberately creating forecasts that are most favorable to procuring political and financial support necessary to proceed with the project.

Specifically, TriMet rail construction projects have consistently over-estimated ridership and peak-hour service levels, while under-estimating construction and operating costs. They also claim to reduce traffic congestion and increase the use of alternative modes; yet none of those things has occurred after more than three decades of light rail operation.