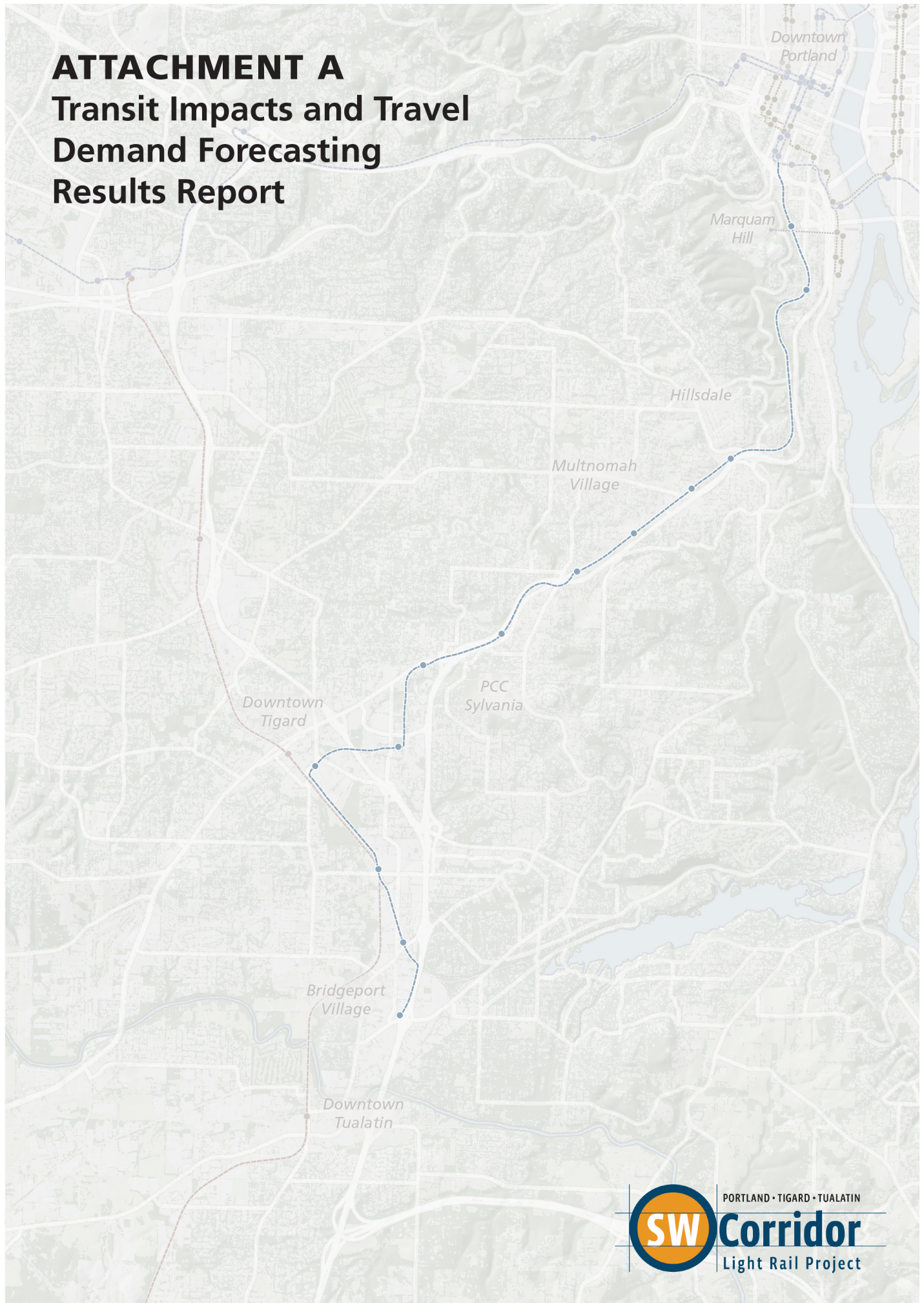


ATTACHMENT A

Transit Impacts and Travel Demand Forecasting Results Report



PORTLAND • TIGARD • TUALATIN
Corridor
Light Rail Project

**Southwest Corridor Light Rail Project
Final Environmental Impact Statement**

**Attachment A:
Transit Impacts and Travel Demand Forecasting Results Report**

January 2022

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Appendix 1: Trip Tables

Appendix 2: Transit Line Listings

1. INTRODUCTION

This Transit Impacts and Travel Demand Forecasting Results Report addresses the effects on transit use and services that could occur with the Southwest Corridor Light Rail Project (Project). The report provides supplemental information to Chapter 3, Transportation Impacts and Mitigation, of the Project's Final Environmental Impact Statement (EIS). As discussed in other sections of the Final EIS, the COVID-19 pandemic has created uncertainty (at the time of this writing) as to near-term changes in travel behavior. However, this analysis considers the long-term future of the Project and relies on pre-pandemic data to inform analysis on future travel behavior and ridership.

2. AFFECTED ENVIRONMENT

This section summarizes the characteristics and performance of the existing transportation system in the corridor and in the region.

2.1. Public Transportation

Transit service in the corridor features fixed-route, fixed-schedule buses operating in mixed traffic, and Westside Express Service (WES) Commuter Rail operating during peak hours between Beaverton and Wilsonville. The major bus route is 12 Barbur. The 96 Tualatin/I-5 bus runs peak-hour, express service between Tualatin and downtown Portland. The Portland Aerial Tram connects the South Waterfront and Oregon Health & Science University (OHSU).

2.2. Transit Lines, Operations and Facilities

The Tri-County Metropolitan Transportation District of Oregon (TriMet) has a current fleet of 700 buses that serves 85 bus lines and seasonal shuttles with 6,500 bus stops and nearly 1,000 bus shelters. There are 216 miles of frequent-service bus lines on 17 routes that provide 15-minute or better all-day service 7 days a week. The 60-mile-long Metropolitan Area Express (MAX) light rail system has 5 lines serving 97 stations, and operates 15-minute or better all-day service 7 days a week. In addition to fixed-route bus and MAX service, TriMet operates more than 250 LIFT vehicles, which provide door-to-door service for people with special needs. TriMet operates three bus operations and maintenance (O&M) facilities and two rail O&M facilities.

Table 2.2-1 summarizes TriMet's fixed-route service. Overall, 90 percent of people within the TriMet district live within 0.5 mile of TriMet service.

Table 2.2-1. 2019 Fixed-Route Service Summary

	Streetcar	MAX Light Rail	Frequent Bus	Standard Bus
Routes	2	5	17	83
Length (mi)	16	60	216	748

2.3. Current Ridership, Operating Revenue and Operating Expenses

On weekdays in fiscal year (FY) 2019, the TriMet system averaged 182,800 boardings on buses and 120,900 on light rail. Additionally, LIFT service, which provides rides for people with special needs, averaged 3,500 weekday boardings. Streetcars averaged more than 15,000 boardings, the aerial tram averaged more than 8,500 boardings, and WES Commuter Rail averaged 1,500 boardings per day.

Between FY 2009 and 2019, TriMet annual fare revenue as a percentage of the cost of operation and maintenance dropped from 36 percent to 29 percent, and the average operations cost per boarding ride for the fixed-route service increased from \$2.40 to \$3.84, reflecting inflation and service expansion to lower ridership areas and times. Cost per boarding ride for MAX light rail, at \$3.28, is lower than that for buses, at \$4.11 (FY 2019).

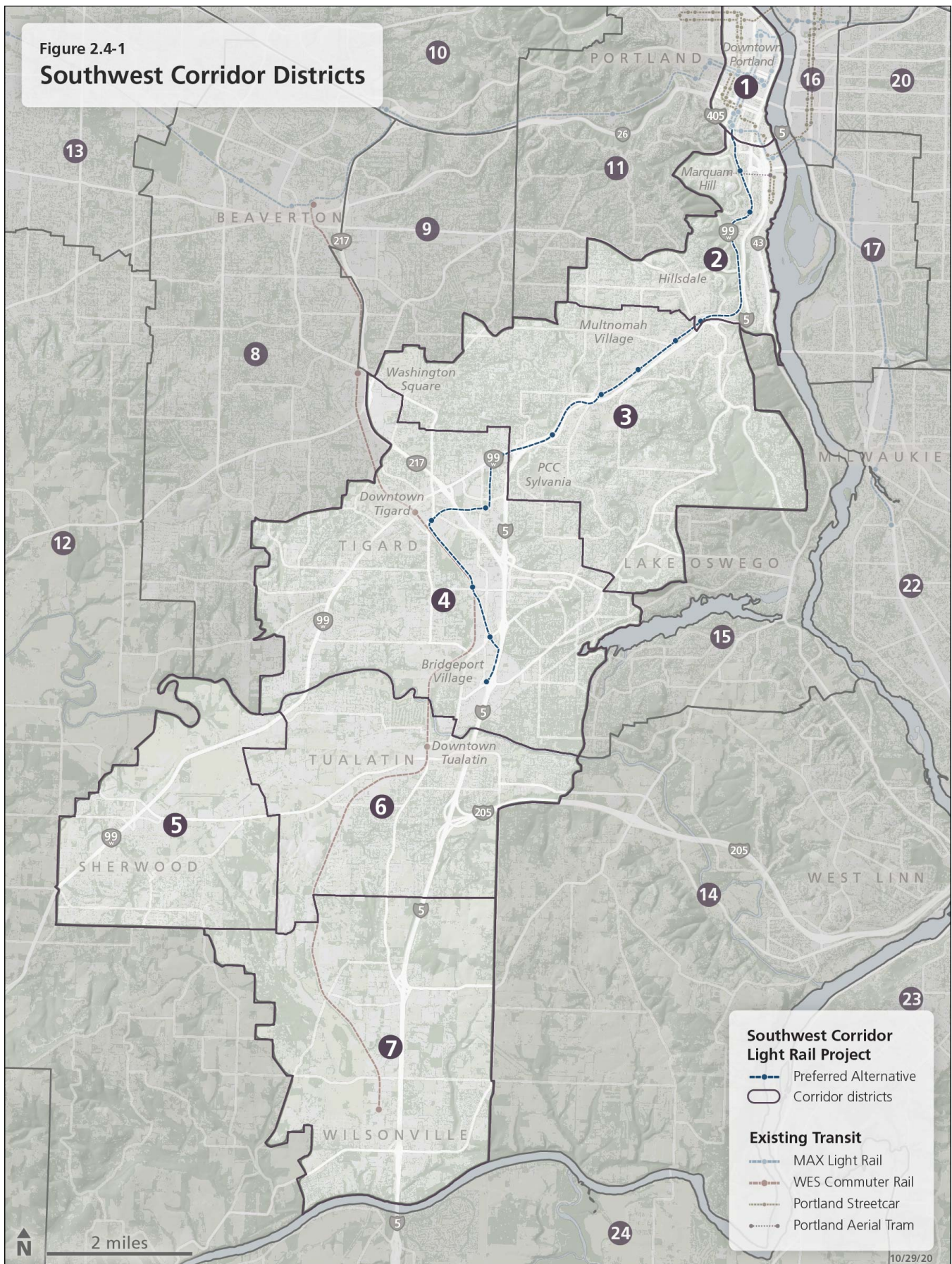
2.4. Travel Behavior

Metro's travel demand forecasting model produced current estimates and future projections of travel behavior referenced in this results report. The basic unit of measurement used in describing travel behavior is the "person trip," which is a trip made by one person from a point of origin to a destination, via any travel mode. Several trip variables, including the origin, destination, mode and purpose of the trip, further describe travel behavior.

Travel demand totals between districts or groups of transportation analysis zones (TAZs) help to discern travel markets and shifts in modes due to the differences between alternatives. The district-to-district travel demand totals are split into three groups: total person trips, transit work trips and total transit trips. Figure 2.4-1 shows the district boundaries used to summarize trip data in the modeling conducted for the Project. Districts one through seven comprise the Southwest Corridor.

For 2015, the base year for the Final EIS, the transportation facilities in the Southwest Corridor were estimated to carry 65,100 person trips between the corridor and the Portland Central Business District (CBD) on an average weekday. Of these, approximately 11,000 (17 percent) were on the transit system. Of 16,100 daily *work* trips between the corridor and the CBD (District 1), 5,900 (37 percent) were on transit.

**Figure 2.4-1
Southwest Corridor Districts**



3. TRANSIT IMPACTS

This section presents the impacts that the Project would have on the transit system in the corridor. This section compares transit service characteristics, travel time, ridership and reliability for the No-Build Alternative and the Preferred Alternative. The Final EIS also evaluates two terminus options, which are portions of the light rail investment that could be constructed if there is insufficient funding for the full-length alignment. Differences between the Preferred Alternative and the terminus options are addressed where appropriate.

3.1. District-to-District Travel Demand and Mode Choice

3.1.1. Total Person Trip Demand

Total person trip demand indicates the total number of people traveling by auto, transit, bicycle and walk between two areas. Identical person trip tables were used in modeling the No-Build Alternative and the Preferred Alternative, consistent with methodology used under the Federal Transit Administration (FTA) New Starts guidelines. The model projects 2,378,000 daily person trips originating from or destined to the corridor in 2035, excluding intra-Portland CBD (District 1) trips. Table 1 in Appendix 1 shows the total person trips by district for the 2035 No-Build Alternative.

3.1.2. Transit Work Trip Demand

Transit work trips are those transit trips that begin or end at work. There would be 125,800 daily transit work trips originating from or destined to the corridor in 2035, excluding intra-Portland CBD (District 1) trips with the Preferred Alternative, compared to 116,000 with the No-Build Alternative. Tables 2 and 3 in Appendix 1 show the work transit trips by district for the 2035 No-Build Alternative and the 2035 Preferred Alternative.

3.1.3. Total Transit Trip Demand

Total transit trips include both work and non-work trips using transit. With the Preferred Alternative, there would be 249,500 daily transit trips originating from or destined to the corridor in 2035, excluding intra-Portland CBD (District 1) trips, compared to 229,200 daily transit trips with the No-Build Alternative in 2035. Tables 4 and 5 in Appendix 1 show the total transit trips by district for the 2035 No-Build Alternative and the 2035 Preferred Alternative.

3.2. Service Characteristics

3.2.1. Transit Network

The assumed transit networks for the No-Build Alternative, Preferred Alternative and terminus options in 2035 are described below and illustrated in Figures 3.2-1 and 3.2-2. Unless noted otherwise, the transit lines described are operated by TriMet.

No-Build Alternative

The travel demand modeling of the No-Build Alternative assumes TriMet's anticipated regional transit network for 2035, informed by the *Regional Transportation Plan* (Metro, 2018) and the *Southwest Service Enhancement Plan* (TriMet, 2015).

Changes in bus routing and service frequency between existing service and the 2035 No-Build Alternative in the project vicinity include:

- More frequent service would be provided on bus Lines 8, 36, 37, 39, 43, 44, 45, 54, 55, 56, 93 and 94.
- Service would be upgraded from peak-only to all-day service on bus lines 1, 65, 68 and 97.
- Line 1 would be extended to Tigard Transit Center via Washington Square.
- Line 36 would be extended from Bridgeport Village to Pacific Highway (99W) via SW Durham Road.
- Line 37 would be rerouted to Tigard Transit Center via Kruse Way, SW Bonita Road, SW McDonald Street and Pacific Highway instead of to Bridgeport Village via SW Boones Ferry Road.
- Line 39 would be extended to downtown Portland via SW Sunset Boulevard and SW Dosch Road.
- Line 44 would be extended to Bridgeport Village via SW Kerr Parkway and SW Boones Ferry Road.
- Line 45 would be rerouted on the west end of its route to serve Beaverton instead of Washington Square and the Tigard Transit Center. On the east end, it would be rerouted to serve Sellwood instead of downtown Portland.
- Line 92 would be rerouted via SW Oleson Road, SW Multnomah Boulevard and Interstate 5 (I-5) instead of via SW Scholls Ferry Road, SW Beaverton-Hillsdale Highway and SW Barbur Boulevard.
- Wilsonville's South Metro Area Regional Transit (SMART) Barbur bus route would be extended from the Barbur Transit Center to downtown Portland via SW Barbur Boulevard.
- A new line would be added to connect planned future development in the Basalt Creek area to the Tigard Transit Center via Pacific Highway.

Preferred Alternative

With the opening of a new light rail line, TriMet typically makes adjustments to the surrounding bus network to optimize ridership and service efficiency. TriMet would make final decisions on bus service and routing changes for the Preferred Alternative shortly before the opening of service. The analysis in this Final EIS assumes the Preferred Alternative would have the following differences from the No-Build Alternative bus service in 2035:

- **SW Barbur Boulevard and Pacific Highway.** Line 12 bus service would be removed south of downtown Portland, on both SW Barbur Boulevard and Pacific Highway. Line 93 would be extended along Pacific Highway and SW Barbur Boulevard between the Tigard Transit Center and the Barbur Transit Center to replace Line 12 service in that stretch. Line 94 express, which runs between Sherwood and downtown Portland, would be shortened to terminate at the Barbur Transit Center to the north. Line 1 would be shortened to terminate at Burlingame (SW Bertha Boulevard) near the 13th Station instead of continuing into downtown Portland via SW Barbur Boulevard.
- **Shared transitway.** Line 44 and Line 56 from Beaverton would run on the light rail trackway in a shared transitway between the 4900 block of SW Barbur Boulevard and SW Lincoln Street, allowing the

buses to improve travel times and reliability by avoiding congestion. (For more information, see discussion of the shared transitway later in this Attachment A.)

- **Lake Grove and Wilsonville.** Wilsonville's SMART Barbur route would be shortened to terminate at the Bridgeport Station instead of in downtown Portland. Line 96, an express route between Wilsonville and downtown Portland under the No-Build Alternative, would be rerouted north of the Bridgeport Station to provide local service on SW Boones Ferry Road and would continue north into downtown Portland along the route of Line 38 under the No-Build Alternative. Line 38 would instead serve Lake Oswego, the Portland Community College (PCC) Sylvania campus, and the Barbur Transit Center, including new bus service on SW 35th Avenue and SW Stephenson Street. Off-peak service would be reduced on the portion of Line 44 between PCC-Sylvania and Bridgeport Village along SW Kerr Parkway and SW Boones Ferry Road.
- **Marquam Hill.** With light rail and the shared transitway buses serving Marquam Hill, Lines 64 and 65 to Marquam Hill from Tigard and Burlingame, respectively, would be removed.

Terminus Options

The Final EIS considers two terminus options, which are portions of the Preferred Alternative that could be constructed if there is insufficient funding for the full length of the alignment:

- Upper Boones Ferry Terminus Option
- Hall Terminus Option

The Upper Boones Ferry Terminus Option would be a 10-mile alignment, 1 mile shorter than the Preferred Alternative, which means it would not include the Bridgeport Station and Bridgeport Park and Ride. The Hall Terminus Option would be an 8-mile alignment terminating at the Hall Station in downtown Tigard. The analysis in this Final EIS assumes that the bus service for either terminus option would differ from that of the Preferred Alternative for four lines affecting Lake Grove and Wilsonville.

With the Upper Boones Ferry Terminus Option, Wilsonville's SMART Barbur route would be extended via SW 72nd Avenue to terminate at the Upper Boones Ferry Station instead of the Bridgeport Station. Line 96 would operate as an express bus on I-5 north of Bridgeport Village, consistent with the No-Build Alternative. Line 38 would match the No-Build Alternative routing north of SW Kruse Way. South of SW Kruse Way, Line 38 would continue south along SW Boones Ferry Road to Bridgeport Village, and then north on SW 72nd Avenue to terminate at the Upper Boones Ferry Station. Line 44 would have the same off-peak service frequencies as under the No-Build Alternative between PCC-Sylvania and Bridgeport Village along SW Kerr Parkway and SW Boones Ferry Road.

Bus service with the Hall Terminus Option would be similar to the Upper Boones Ferry Terminus Option. The SMART Barbur route would extend northward to the Barbur Transit Center via SW 72nd Avenue and Pacific Highway. Line 38 would be routed as with the Upper Boones Ferry Terminus Option, but would be shortened to terminate at Bridgeport Village. Lines 44 and 96 would be identical to the Upper Boones Ferry Terminus Option routing.

Figure 3.2-1
2035 Transit Network
No-Build Alternative

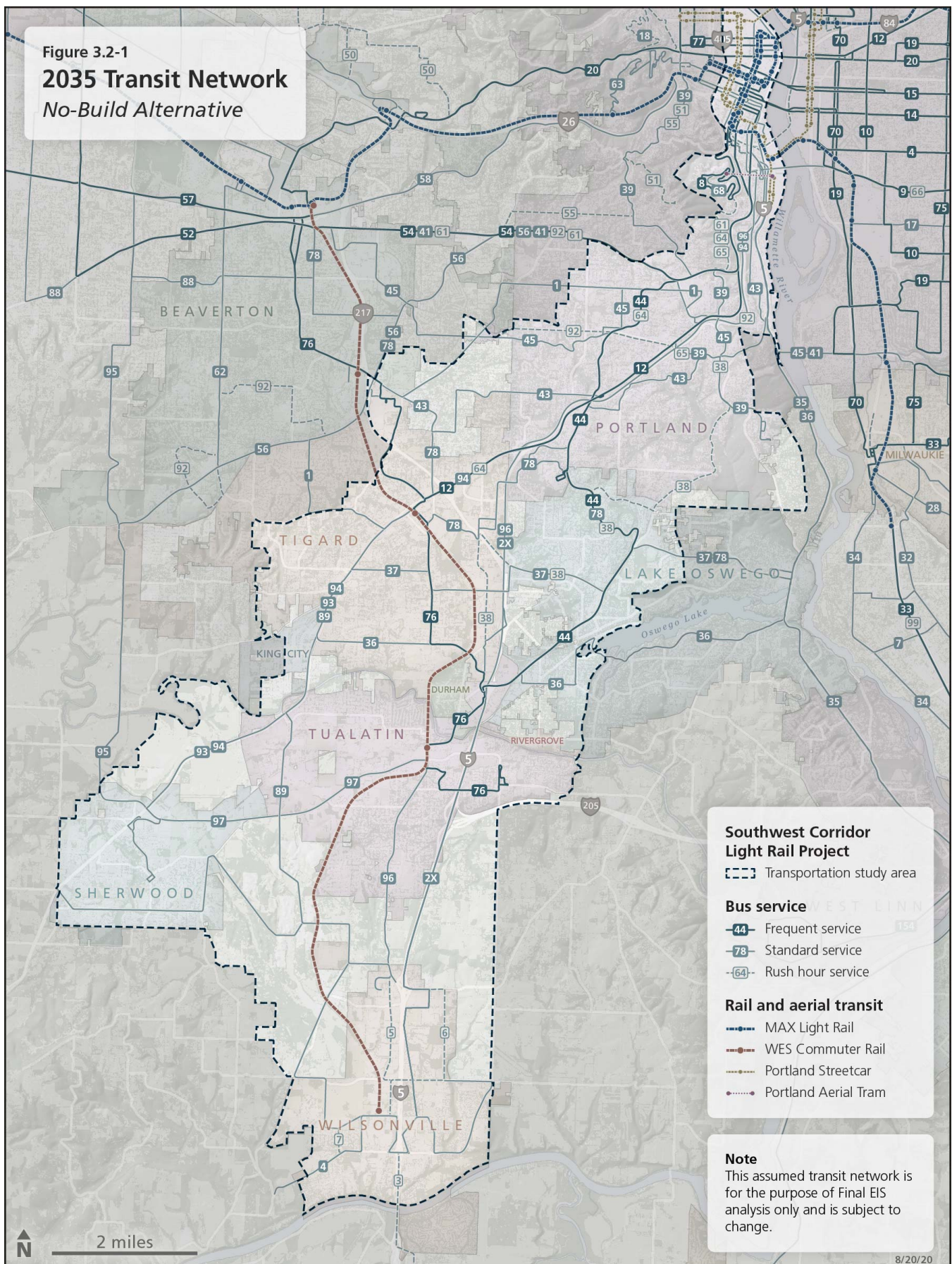
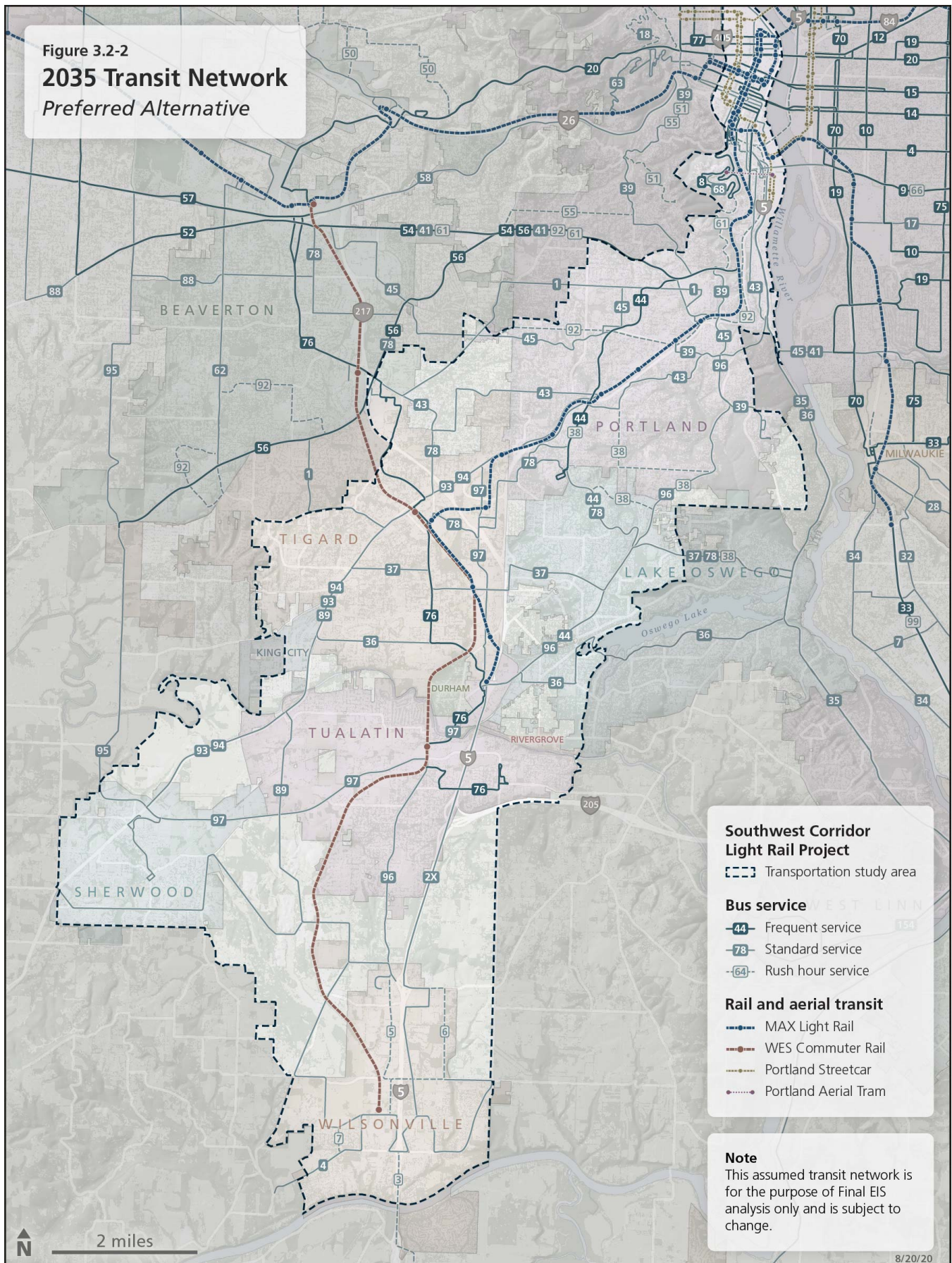


Figure 3.2-2
2035 Transit Network
Preferred Alternative



3.2.2. Amount of Service

The amount of transit service provided is measured by daily vehicle hours traveled (VHT) in revenue service, daily vehicle miles traveled (VMT) in revenue service, and daily place-miles of service. Daily VHT are the cumulative time that transit vehicles are in service and daily VMT are the distance they travel, independent of the size of the vehicles. “Daily” is defined as an average weekday in the year 2035. Place-miles refer to the total carrying capacity (seated and standing) of each bus or train and are calculated by multiplying the vehicle capacity of each bus or light rail vehicle by the daily VMT. Place-miles highlight differences in available capacity between alternatives. Table 3.2-1 summarizes these transit service characteristics

Table 3.2-1. Average Weekday Corridor¹ Transit Service Characteristics, Year 2035

Measure	Existing (2015)	No-Build Alternative	Preferred Alternative
Transit VMT			
Bus	9,029	11,783	10,726
LRT ²	3	3	1,699
Total	9,032	11,786	12,425
% Change ³	N/A	30.5%	5.4%
Transit VHT			
Bus	520	729	691
LRT ²	1	1	72
Total	521	730	763
% Change ³	N/A	40.1%	4.6%
Place-Miles⁴			
Bus	496,595	648,065	589,930
LRT	7,989	798	451,934
Total	497,393	648,863	1,041,864
% Change ³	N/A	30.5%	50.6%

Source: Metro, 2020.

Note: LRT = light rail transit; N/A = Not Applicable; VHT = Vehicle Hours Traveled; VMT = Vehicle Miles Traveled.

¹ Excludes Portland Central Business District (CBD).

² For LRT, *transit VMT* and *VHT* are measured in train miles, rather than in car miles.

³ For the No-Build Alternative, the % change is the change from existing; for all other alternatives, % change is from the No-Build Alternative.

⁴ Place miles = transit vehicle capacity (seated and standing) multiplied by VMT. Bus capacity = 55, LRT capacity = 266 (LRT consists of two-car trains; each car can carry 133 people).

Light rail is assumed to operate at the TriMet policy minimum frequency of 15 minutes all day, or four trains per hour, with additional trains added in peak periods to serve higher ridership demand.

3.2.3. Travel Time

Transit and auto travel time are assessed using in-vehicle time and total travel time, as shown in Table 3.2-2. This table summarizes the change in PM peak-hour in-vehicle and total travel time between the No-Build Alternative and the Preferred Alternative. Travel times are shown from Portland State University (PSU) in downtown Portland to the Barbur Transit Center Station, the Hall Station in downtown Tigard, and the Bridgeport Station.

Table 3.2-2. Average Weekday PM Peak-Hour Auto and Transit Travel Times, Year 2035

Origin/Destination	Auto via I-5	Auto via SW Barbur Blvd.	No-Build Local Bus Transit	No-Build Express Bus Transit	Preferred Alternative Transit
In-Vehicle Travel Time (in minutes)¹					
From PSU to:					
Barbur TC Station	12	18	25 ³	15 ⁵	14
Hall Station	24	31	49 ³	29 ⁵	23
Bridgeport Station	29	N/A	63 ⁴	38 ⁶	30
Total Travel Time (in minutes)²					
From PSU to:					
Barbur TC Station	17	23	38 ³	24 ⁵	23
Hall Station	29	36	62 ³	38 ⁵	32
Bridgeport Station	34	N/A	88 ⁴	53 ⁶	43

Source: Metro, 2020; TriMet, 2017, 2020.

Note: N/A = Not Applicable; PSU = Portland State University; TC = Transit Center.

¹ In-vehicle time is the time that a passenger would spend within a public transit vehicle or an automobile.

² Total time is the sum of in-vehicle time and all other time related to completing the trip, including walking and waiting time.

³ TriMet Line 12

⁴ TriMet Lines 12 and 76

⁵ TriMet Line 94

⁶ TriMet Line 96

Compared to No-Build Alternative local bus service, the Preferred Alternative would improve the PM peak-hour in-vehicle transit travel times from PSU by 11 minutes to the Barbur Transit Center, by 26 minutes to the Hall Station, and by up to 33 minutes to Bridgeport Station in 2035. Total transit time, including walk, initial wait and transfer wait times, would improve by 15 to 45 minutes with light rail. The Preferred Alternative total transit travel time would be similar to express bus times between PSU and the Barbur Transit Center, and six minutes less than express bus between PSU and the Hall Station. Light rail would also serve more stops and riders than limited-stop express buses between these destinations. The Preferred Alternative would save about 10 minutes in total travel time over express buses between PSU and Bridgeport Station.

3.2.4. Reliability

Light rail lines in the TriMet system use reserved or exclusive right of way and exhibit greater percentages of on-time arrivals than do buses operating in mixed traffic. Transit service that would operate in mixed traffic would be subject to traffic congestion and delay.

Table 3.2-3 summarizes three measures of transit reliability in the corridor: miles of exclusive or reserved right of way, the number of passenger miles that would occur in that right of way, and the percentage of passenger miles that would occur in that right of way. The light rail alignment on SW Barbur Boulevard between downtown Portland and SW Capitol Highway ramps would be paved to accommodate buses as well as light rail in a shared transitway. This shared transitway would allow buses on Lines 44 and 56 to avoid congestion and improve travel times and reliability. Bus riders using this shared transitway are included in the calculation.

Table 3.2-3. Measures of Transit Reliability in the Corridor,¹ Year 2035

Light Rail Right-of-Way Measure	No-Build	Preferred Alternative
Miles of Light Rail	1	13
Average Weekday Passenger Miles ²	216	227,996
% of Total Corridor Passenger Miles ²	0%	49%

Source: Metro, 2020.

¹ Light rail provides an exclusive grade-separated and/or barrier-separated transit right of way.

² Excludes downtown Portland in order to isolate transit lines that primarily serve the corridor.

3.3. Transit Ridership

This section evaluates several types of transit ridership: Southwest Corridor light rail (project) ridership, total corridor transit ridership, total transit system ridership, work and non-work transit trips and mode share, and Southwest Corridor light rail (project) station boardings and peak load points (defined below).

3.3.1. Southwest Corridor Light Rail Line and Light Rail System Ridership

The ridership figures presented in Table 3.3-1 include average weekday boardings for the light rail line between the existing Jackson Street Station in downtown Portland and the terminus. The Preferred Alternative is forecast to have 37,500 daily light rail riders in 2035, and an additional 20,500 bus riders utilizing the shared transitway. Forecasts for light rail riders on the shorter terminus options range from 29,300 to 31,800, with 21,500 to 21,600 bus riders on the shared transitway.

Most existing light rail lines would experience slight changes in ridership with the introduction of the Preferred Alternative or terminus options. Ridership on the Green Line MAX, however, is projected to increase by approximately 9 to 11 percent, demonstrating the effect of interlining the Green Line with the proposed light rail line and allowing riders to access the Southwest Corridor without transferring.

The peak load point is the location along the alignment with the highest projected ridership in the peak direction in the peak hour, and determines the frequency of service needed to accommodate demand. The peak load points for all light rail lines in the TriMet system are close to downtown Portland. The peak load point of the Preferred Alternative and terminus options would occur just south of the Gibbs Station.

Table 3.3-1. Average Weekday Light Rail Ridership and Peak Load, Year 2035

Measure	No-Build Alternative	Preferred Alternative	UBF Terminus Option	Hall Terminus Option
Light Rail Ridership				
Southwest Corridor Light Rail	N/A	37,500	31,800	29,300
Portland-Milwaukie (Orange Line)	23,000	23,000	23,100	23,200
East-West MAX (Blue Line) Eastside	60,700	59,300	59,800	59,900
East-West MAX (Blue Line) Westside	59,400	59,900	59,500	59,500
Airport MAX (Red Line) Eastside	28,100	27,300	27,500	27,500
Airport MAX (Red Line) Westside	23,500	23,400	23,300	23,300
I-205 Light Rail (Green Line)	53,800	59,800	58,900	59,200
Interstate MAX (Yellow Line) ¹	41,000	41,400	41,300	41,300
PM, Peak-Hour, Peak-Direction, Peak Load Point				
Southwest Corridor Light Rail	N/A	1,980	1,630	1,560
Portland-Milwaukie (Orange Line)	1,910	1,900	1,900	1,900
East-West MAX (Blue Line) Eastside	2,740	2,710	2,710	2,700
East-West MAX (Blue Line) Westside	2,760	2,770	2,740	2,740
Airport MAX (Red Line) Eastside	550	560	550	550
Airport MAX (Red Line) Westside	790	790	780	780
I-205 Light Rail (Green Line)	2,440	2,590	2,570	2,570
Interstate MAX (Yellow Line) ¹	1,720	1,750	1,750	1,750

Source: Metro, 2020.

Note: I-205 = Interstate 205; N/A = Not Applicable; UBF = Upper Boones Ferry.

¹ Interstate MAX is assumed to operate through to Vancouver, Washington, consistent with the Regional Transportation Plan.

3.3.2. Corridor and Total System-Wide Ridership

Total transit ridership in the corridor would increase over the No-Build Alternative by 7 to 9 percent with light rail (Table 3.3-2). Total transit ridership in the system would increase over the No-Build Alternative by 18,100 to 22,200 trips.

Table 3.3-2. Average Weekday Total System-Wide and Southwest Corridor Transit Trips, Year 2035

Measure	Existing (2015)	No-Build Alternative	Preferred Alternative	UBF Terminus Option	Hall Terminus Option
Total corridor transit trips (originating rides)	136,700	229,200	249,500	247,400	245,800
Change from existing	N/A	92,500	112,800	110,700	109,100
% change from existing	N/A	68%	83%	81%	80%
Change from No-Build Alternative	N/A	N/A	20,300	18,200	16,600
% change from No-Build Alternative	N/A	N/A	9%	8%	7%
Total system-wide transit trips	317,500	564,500	586,700	584,300	582,600

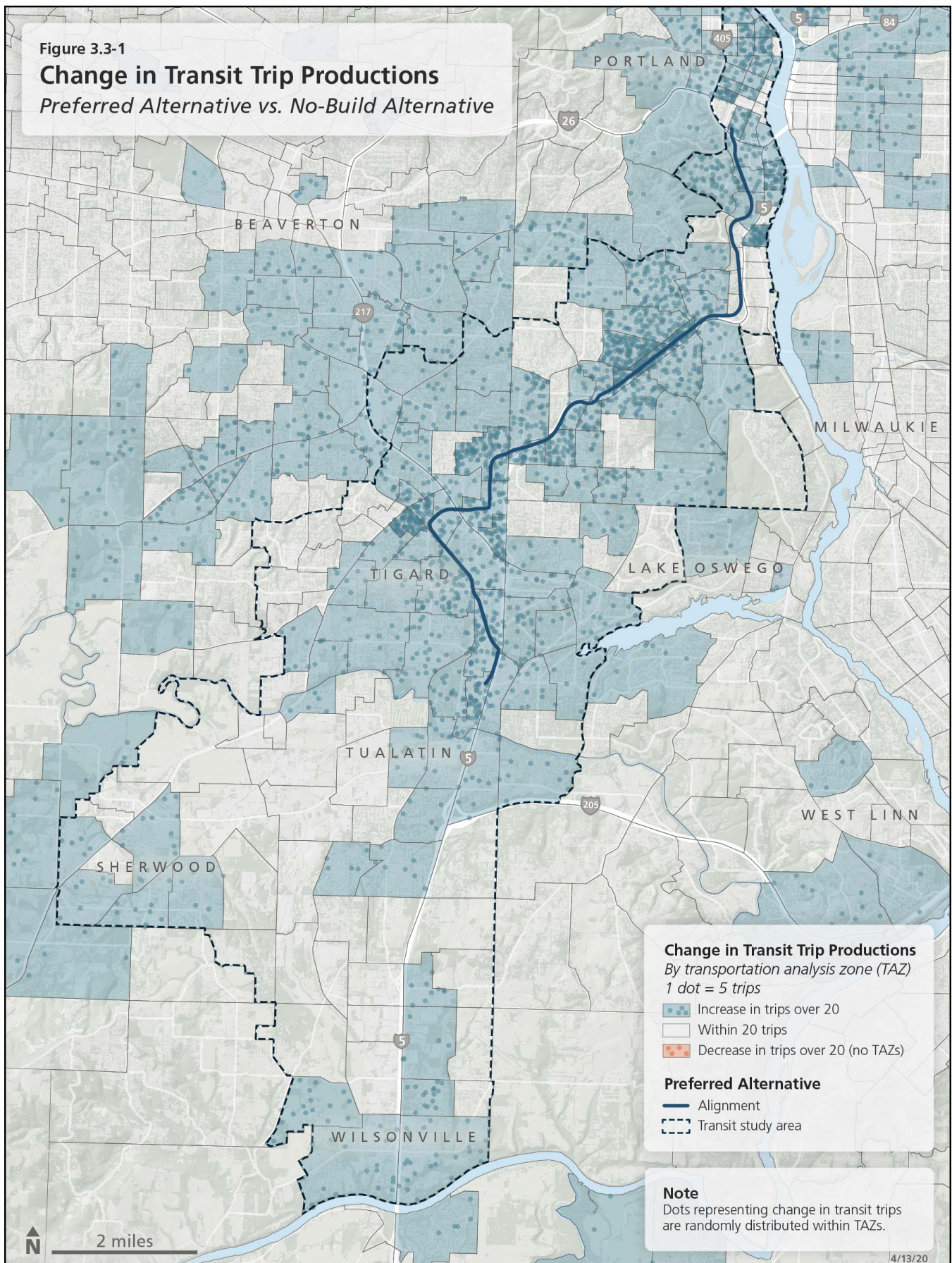
Source: Metro, 2020.

3.3.3. Transit Trip Productions

Figure 3.3-1 shows the difference in transit trip productions (i.e., where trips would originate) for the Preferred Alternative compared to the No-Build Alternative. The map indicates which areas within the Southwest Corridor would benefit from the Project, and conversely, which areas would experience a decrease in transit ridership production.

Figure 3.3-1

Change in Transit Trip Productions Preferred Alternative vs. No-Build Alternative



Of the 180 TAZs in the corridor, 112 zones would see an increase of more than 20 average weekday transit trip productions over the No-Build Alternative, for a total of 12,530 additional transit trips. No zones would see a reduction of more than five transit trip productions. In addition, 106 zones outside of the corridor would gain more than 20 trips productions, for a total of 4,470 new productions. In general, the increase in transit trip productions would be due to improvements in travel times and accessibility with the proposed light rail line.

3.3.4. Work and Non-Work Transit Trips and Mode Share

Table 3.3-3 shows corridor transit trips and transit mode share (percentage of trips choosing to ride transit for a given trip) for trips produced in the Southwest Corridor that would be destined to the Portland CBD for work and non-work purposes. The CBD is projected to have nearly 90,000 jobs in 2035, accounting for 28 percent of the jobs in the corridor. The Preferred Alternative and the Terminus Options would have a higher transit mode share for both home-based work and non-work trips destined to the CBD, compared to the No-Build Alternative.

Table 3.3-3. Average Weekday Work and Non-Work Corridor Transit Trips and Transit Mode Share to and from Portland CBD, Year 2035

Measure	Existing (2015)	No-Build	Preferred Alternative	UBF Terminus Option	Hall Terminus Option
Home-Based Work¹					
Transit trips	5,950	10,100	11,120	10,900	10,840
Total trips	16,120	21,990	21,990	21,990	21,990
Transit mode share	37%	46%	51%	50%	49%
Non-Work²					
Transit trips	5,040	10,520	11,870	11,730	11,590
Total trips	48,950	67,360	67,360	67,360	67,360
Transit mode share	10%	16%	18%	17%	17%
Total					
Transit trips	10,990	20,620	22,990	22,630	22,440
Total trips	65,080	89,350	89,350	89,350	89,350
Transit mode share	17%	23%	26%	25%	25%

Source: Metro, 2020.

¹ Home-based work trips are defined as trips taken directly between one's home and one's place of work.

² Non-work trips are defined as all trips that are not home-based work trips.

3.3.5. Station Usage and Mode of Access and Egress

Table 3.3-4, 3.3-5 and 3.3-6 summarize individual station use and mode of access and egress to the light rail stations with the Preferred Alternative, Upper Boones Ferry Terminus Option and Hall Terminus Option, respectively.

The most frequently used station with the Preferred Alternative would be the Bridgeport Station, with 16 percent of ons and offs, about half of which would transfer to or from light rail via bus. The Gibbs Station, where riders would access the Marquam Hill Connection, is forecast to experience about 12 percent of the ons and offs, making it the second busiest station. Third would be the Hall Station, with 11 percent.

With the Upper Boones Ferry Terminus Option, which would not include a Bridgeport Station, the Gibbs and Hall Stations would each have 14 percent of the total ons and offs. With the Hall Terminus Option, which would not include the Bridgeport, Upper Boones Ferry or Bonita Stations, the share of ons and offs at the Gibbs and Hall Stations would increase to 15 and 16 percent, respectively. For both terminus options, the number of ons and offs at the Gibbs Station would be lower than with the Preferred Alternative, while the number of ons and offs at the Hall Station would be higher. The terminus options would also result in an increase in ons and offs at the Barbur Transit Center Station compared to the Preferred Alternative, due to bus riders needing to travel farther north to transfer to light rail.

Table 3.3-4. Preferred Alternative Average Weekday Station Usage (Ons and Offs) by Mode of Access and Egress, Year 2035

Station	% Walking	% Transfer	% Auto	Station Ons/Offs	% Total Ons/Offs
Jackson	53	47	0	1,905	4
Gibbs	98	2	0	6,190	12
Hamilton	49	52	0	1,810	4
13th	63	37	0	2,340	5
19th	87	12	1	2,050	4
30th	95	0	5	4,210	8
Barbur TC	65	12	24	2,920	6
53rd	65	1	34	2,440	5
68th	41	40	19	4,890	10
Elmhurst	99	1	0	3,940	8
Hall	46	42	12	5,470	11
Bonita	73	27	0	2,330	5
Upper Boones Ferry	100	0	0	1,290	3
Bridgeport	23	50	27	7,820	16

Source: Metro, 2020.

Note: TC = Transit Center.

Table 3.3-5. Upper Boones Ferry Terminus Option Average Weekday Station Usage (Ons and Offs) by Mode of Access and Egress, Year 2035

Station	% Walking	% Transfer	% Auto	Station Ons/Offs	% Total Ons/Offs
Jackson	53	47	0	1,650	4
Gibbs	98	2	0	5,870	14
Hamilton	60	40	0	1,540	4
13th	63	37	0	2,350	6
19th	85	14	1	2,010	5
30th	95	0	5	4,150	10
Barbur TC	42	42	16	4,230	10
53rd	64	1	36	2,330	5
68th	41	41	19	4,820	11
Elmhurst	99	1	0	3,770	9
Hall	41	47	12	5,660	14
Bonita	66	34	0	2,400	6
Upper Boones Ferry	95	5	0	1,110	3
Bridgeport	N/A	N/A	N/A	N/A	N/A

Source: Metro, 2020.

Note: N/A = Not Applicable; TC = Transit Center.

Table 3.3-6. Hall Terminus Option Average Weekday Station Usage (Ons and Offs) by Mode of Access and Egress, Year 2035

Station	% Walking	% Transfer	% Auto	Station Ons/Offs	% Total Ons/Offs
Jackson	56	44	0	1,540	4
Gibbs	98	2	0	5,730	15
Hamilton	62	38	0	1,460	4
13th	65	35	0	2,270	6
19th	85	14	1	1,960	5
30th	95	0	5	4,060	11
Barbur TC	41	43	16	4,180	11
53rd	62	1	37	2,250	6
68th	39	42	19	4,770	12
Elmhurst	91	9	0	3,920	10
Hall	37	52	11	6,000	16
Bonita	N/A	N/A	N/A	N/A	N/A
Upper Boones Ferry	N/A	N/A	N/A	N/A	N/A
Bridgeport	N/A	N/A	N/A	N/A	N/A

Source: Metro, 2020.

Note: N/A = Not Applicable; TC = Transit Center.

3.3.6. Light Rail Ridership Distribution

This section illustrates the distribution of the total projected riders along the light rail line and the connecting riders along their source transit routes.

Light Rail Line Volumes

Figure 3.3-2 shows the distribution of riders along the light rail line on an average weekday in 2035 between the Jackson Street Station on the Portland Transit Mall and the Bridgeport Station terminus for the Preferred Alternative. The figure shows all light rail riders, including walk-on, transfer and park and ride patrons. The ridership is highest at the peak load point, just south of the Gibbs Station.

Connecting Riders

Figure 3.3-3 maps the transit lines that connect to the Southwest Corridor light rail line and shows the distribution of Southwest Corridor light rail riders on those lines on an average weekday in 2035. Connecting transit lines include the Green Line MAX, which would interline with the Southwest Corridor light rail, and all bus, light rail, WES Commuter Rail and streetcar lines that would provide transfer opportunities to the Southwest Corridor line. The highest concentration of riders connecting to the Southwest Corridor line would come from the Green Line MAX, followed by transit riders on bus lines along Pacific Highway southwest of Tigard.

3.3.7. Corridor Throughput

Light rail service would increase the person throughput in the corridor by adding capacity to the existing transportation network. Compared to the No-Build Alternative, the Preferred Alternative would increase PM peak 1-hour person throughput in the peak direction south of downtown Portland by 25 percent in 2035. Of that total person throughput, approximately 20 percent would use light rail. Table 3.3-7 shows the share of southbound commuters in the PM 1-hour peak period that would be carried by I-5, SW Barbur Boulevard and light rail south of downtown Portland, in the vicinity of SW Bancroft Street, under the Preferred Alternative in 2035.

Table 3.3-7. PM Peak 1-Hour, Southbound Commuter Throughput by Facility, South of Downtown Portland, Year 2035

Facility	Passenger Volume ¹	Share
I-5	4,960	50%
SW Barbur Boulevard ²	3,000	30%
Southwest Corridor light rail ³	1,980	20%

Source: Metro, 2020.

Note: I-5 = Interstate 5.

¹ Projected auto volumes multiplied by average auto occupancy rate of 1.13

² South of merge point with SW Naito Parkway

³ South of the Gibbs Station

Figure 3.3-2
Rider Distribution on
Preferred Alternative
2035 Average Weekday

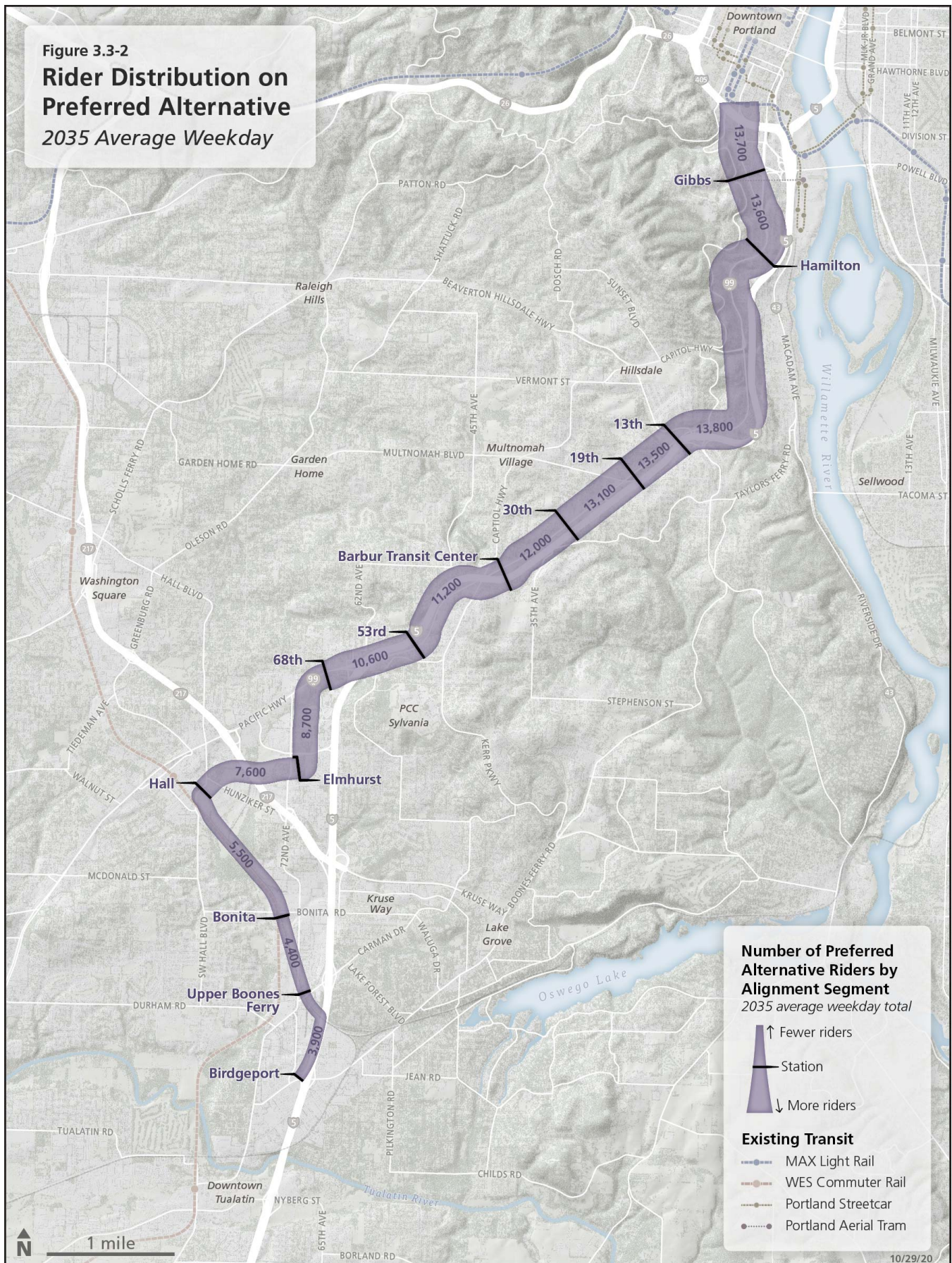
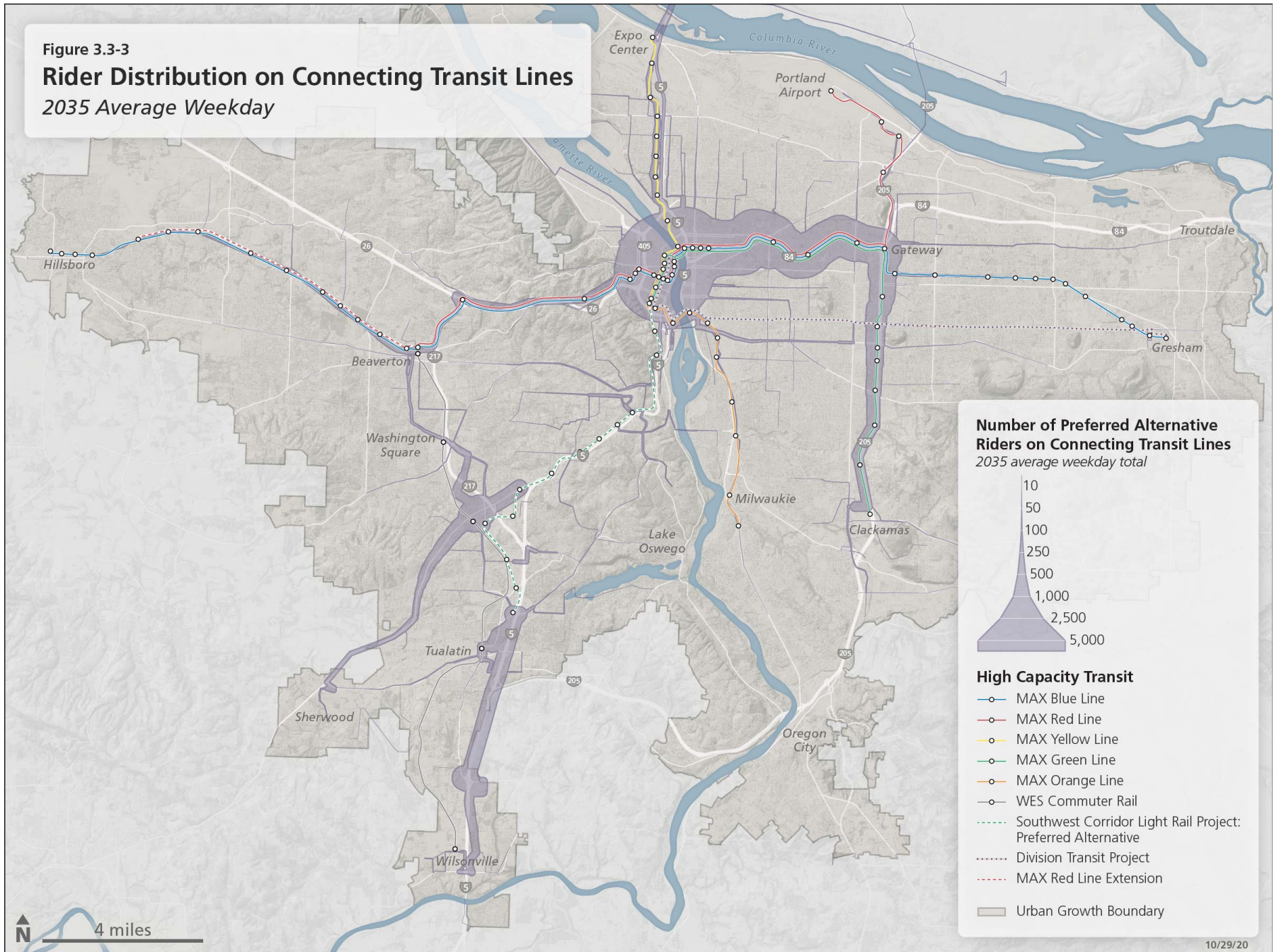


Figure 3.3-3
Rider Distribution on Connecting Transit Lines
 2035 Average Weekday



10/29/20

Appendix 1: Trip Tables

Figure A1-1. Regional Districts

Table A1-1. 2035 Average Weekday Total Person Trips by District

Table A1-2. 2035 Average Weekday Transit Work Trips by District: No-Build

Table A1-3. 2035 Average Weekday Transit Work Trips by District: Preferred

Table A1-4. 2035 Average Weekday Total Transit Trips by District: No-Build

Table A1-5. 2035 Average Weekday Total Transit Trips by District: Preferred Alternative

Appendix 2: Transit Line Listings

Table A2-1. 2035 No-Build Transit Lines

Table A2-2. 2035 Light Rail Alternative Transit Lines

APPENDIX 1

Trip Tables

**Figure A1-1
Region Districts**

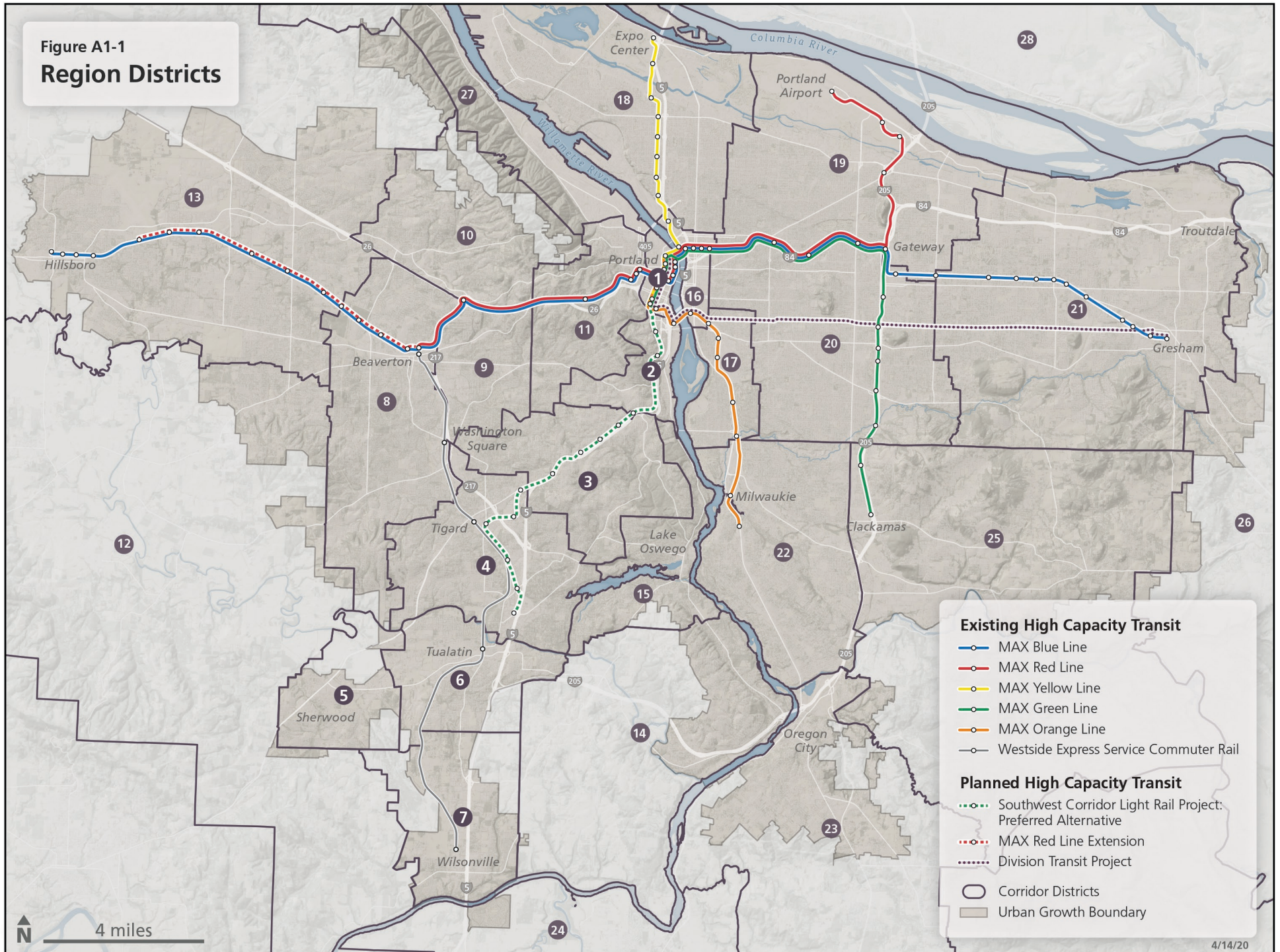


Table A1-1. 2035 Average Weekday Total Person Trips by District

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	Sum
1	229,354	17,236	3,228	5,879	262	961	625	5,601	2,494	2,566	36,675	431	6,183	364	661	28,969	4,863	15,488	11,661	18,435	3,799	2,513	436	130	2,235	234	3,511	4,254	409,046
2	38,106	66,031	11,574	12,534	505	1,915	1,254	8,356	4,823	2,691	16,595	689	7,306	749	1,493	12,502	5,755	9,620	7,069	12,793	2,921	3,380	625	226	2,650	206	1,829	2,987	237,184
3	11,081	17,425	54,788	51,598	1,485	5,714	3,673	17,704	8,086	3,332	9,042	1,571	9,787	1,683	4,045	5,115	2,839	5,505	3,968	6,204	1,544	3,325	1,196	557	2,492	156	1,369	1,524	236,809
4	7,719	9,013	26,317	205,571	5,751	18,980	8,267	41,198	10,076	5,375	6,904	5,051	18,397	3,466	6,265	4,463	2,134	4,819	3,907	5,512	1,525	3,424	2,446	1,352	3,237	201	1,050	1,869	414,288
5	941	1,002	2,586	11,428	30,158	6,908	4,634	5,494	1,007	712	698	4,630	5,321	862	820	443	209	473	378	537	173	654	710	580	771	44	125	142	82,439
6	1,824	2,275	4,718	27,614	4,854	37,931	7,882	7,229	1,873	1,185	1,620	1,863	4,266	2,527	1,989	1,114	571	1,205	977	1,575	555	1,848	1,778	1,023	2,191	136	264	437	123,324
7	1,493	2,078	4,515	16,949	3,995	9,759	61,470	5,640	1,638	1,048	1,472	2,157	3,463	3,273	2,046	1,006	559	1,092	949	1,591	629	2,226	2,321	2,807	2,638	159	244	416	137,632
8	12,825	8,917	15,424	70,823	4,426	8,906	4,841	183,189	23,845	17,409	10,315	14,881	73,120	1,530	2,145	4,818	1,677	5,661	4,089	4,711	1,370	1,919	1,080	642	1,560	109	1,460	1,809	483,501
9	5,496	4,324	5,476	15,224	498	1,488	961	21,661	27,444	4,315	5,256	1,349	11,455	363	521	2,066	779	2,495	1,697	2,205	641	782	245	143	593	47	600	896	119,019
10	10,258	5,629	3,809	13,776	626	1,773	1,133	31,867	9,150	50,339	13,054	2,391	47,887	376	580	4,552	1,153	5,984	3,519	4,140	1,181	1,035	255	149	761	78	1,688	1,642	218,785
11	68,258	16,397	6,741	11,154	421	1,574	1,026	12,512	7,391	6,630	86,287	883	12,390	432	821	14,412	3,088	13,947	8,589	11,341	2,934	2,142	363	150	1,722	187	5,391	3,454	300,637
12	4,792	3,662	7,281	29,009	11,642	8,979	7,660	43,366	6,653	5,830	3,595	52,389	84,758	1,267	1,391	1,516	557	1,968	1,223	1,324	385	943	876	801	915	52	684	395	283,914
13	19,240	12,038	9,219	36,169	3,887	5,756	3,409	105,080	20,277	37,007	18,467	31,488	851,947	909	1,343	8,284	2,306	12,703	7,160	7,498	2,203	2,052	642	407	1,499	138	3,965	3,181	1,208,275
14	2,013	2,880	4,419	15,865	1,683	7,137	7,672	4,499	1,356	830	1,527	831	2,227	41,694	6,379	1,305	1,026	1,362	1,998	3,767	1,963	7,948	9,263	2,060	9,066	544	330	747	142,394
15	2,615	3,500	5,998	17,818	864	3,739	2,569	4,347	1,384	857	1,875	582	2,337	3,601	21,393	1,570	1,202	1,666	1,226	2,134	570	2,567	1,755	498	2,188	125	371	479	89,831
16	25,034	4,567	1,187	2,226	101	344	229	2,020	901	948	8,330	171	2,196	166	285	53,025	4,638	15,635	12,520	19,775	3,293	2,053	350	89	1,911	206	1,003	2,781	165,982
17	13,039	7,645	2,495	3,795	160	703	526	2,240	1,112	872	4,856	172	2,131	447	877	15,101	36,901	8,271	8,533	31,135	4,473	9,621	1,259	281	6,245	425	950	1,547	165,814
18	36,227	13,693	4,246	7,792	321	1,313	864	7,432	3,474	4,060	24,796	581	11,145	507	996	53,036	7,767	242,235	56,132	35,603	14,231	5,711	948	241	5,657	875	7,008	20,459	567,348
19	26,548	9,248	3,119	5,678	289	1,026	772	5,153	2,173	2,553	13,722	566	6,357	817	786	39,560	7,946	55,161	190,542	86,854	44,669	8,956	2,606	711	15,270	2,793	3,134	33,000	570,010
20	49,681	17,273	5,243	9,152	424	1,930	1,494	6,509	3,039	3,040	17,777	440	7,065	1,684	1,531	58,816	33,122	35,814	92,993	328,681	59,028	30,354	6,732	1,394	46,991	3,797	3,943	13,077	841,024
21	13,791	6,410	1,892	3,517	196	954	858	2,587	1,209	1,294	7,424	177	2,805	1,245	573	18,254	7,203	21,975	73,730	81,985	390,889	15,597	5,141	1,208	42,851	25,038	1,985	16,283	747,072
22	8,562	6,326	3,420	6,256	538	2,357	2,148	2,522	1,167	864	4,253	292	1,994	3,478	2,081	10,235	11,727	8,045	13,083	32,581	12,945	121,772	17,187	2,836	59,640	2,583	981	3,192	343,064
23	1,321	1,543	1,533	6,130	689	2,941	2,887	1,768	534	330	924	298	904	4,864	1,641	2,171	2,009	1,844	5,275	10,230	6,111	19,559	90,744	10,167	22,806	1,852	213	1,475	202,765
24	947	1,274	1,885	8,350	1,494	4,494	9,624	2,280	681	415	757	617	1,151	3,164	1,238	1,250	1,106	1,091	2,783	5,408	4,421	10,325	27,503	119,275	14,356	4,513	171	580	231,154
25	4,914	3,794	2,063	5,098	560	2,482	2,283	1,698	721	548	2,836	240	1,240	3,486	1,514	7,063	6,359	6,721	20,102	40,856	45,703	44,299	20,282	3,564	166,400	9,108	711	5,199	409,840
26	1,561	1,025	365	889	87	439	403	382	174	183	1,097	38	366	657	228	2,717	1,423	3,542	11,811	12,676	71,027	7,277	3,930	2,069	20,942	104,258	330	2,505	252,401
27	5,062	1,615	560	1,059	47	161	108	1,159	485	673	6,284	146	3,401	61	111	2,617	507	4,933	2,105	2,231	691	384	65	22	340	44	3,649	1,138	39,658
28	15,543	6,472	1,729	3,081	115	559	385	2,710	1,301	1,519	8,922	157	3,360	374	388	13,926	3,267	51,216	57,855	26,460	23,752	4,697	1,489	277	8,117	1,421	3,032	1,796,329	2,038,452
Sum	618,245	253,293	195,828	604,432	76,077	141,226	139,658	536,202	144,469	157,424	315,358	125,079	#####	84,046	64,142	369,908	152,693	540,473	605,875	798,244	703,625	317,363	202,227	153,658	446,044	159,328	49,991	1,921,797	11,061,660

Table A1-2. 2035 Average Weekday Transit Work Trips by District: No-Build

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	Sum
1	5,428	876	116	434	23	96	66	532	119	141	709	3	597	12	35	879	154	556	455	480	265	164	28	3	147	6	109	156	12,588
2	2,921	855	83	326	19	72	48	330	87	68	317	2	360	12	34	512	93	264	201	238	138	96	22	3	91	3	46	74	7,316
3	2,390	600	117	407	27	86	77	318	70	52	245	2	351	8	25	450	46	141	110	123	66	45	14	2	56	1	24	47	5,904
4	1,882	485	67	451	44	104	93	324	51	50	181	2	372	8	26	340	30	80	66	72	33	29	14	3	43	1	14	24	4,889
5	315	83	13	97	27	31	26	65	8	9	34	1	117	2	7	59	5	12	10	12	5	6	3	1	13	0	2	3	967
6	466	133	11	82	8	40	24	72	10	10	43	0	77	2	7	83	7	16	13	15	9	8	4	1	24	0	3	5	1,174
7	513	164	16	134	8	32	141	124	13	15	59	0	103	3	12	111	8	16	19	19	12	13	9	6	37	0	3	5	1,595
8	3,109	746	93	602	49	138	102	1,015	144	173	446	7	1,594	9	31	613	54	180	160	152	69	48	15	3	55	1	35	53	9,697
9	910	241	27	140	9	32	22	181	50	29	106	1	280	2	9	176	19	58	43	48	24	18	4	1	19	0	9	19	2,479
10	1,367	314	21	152	9	38	20	254	30	78	173	1	441	3	11	273	21	80	67	63	36	24	5	1	28	0	12	32	3,555
11	4,612	772	89	347	18	74	52	535	105	144	877	3	669	9	28	811	105	453	367	374	211	110	18	2	117	4	97	130	11,134
12	1,382	298	15	151	21	42	44	230	24	36	168	3	573	4	14	255	10	32	43	26	16	9	5	0	18	0	6	13	3,436
13	6,363	1,532	126	926	85	212	96	2,500	286	395	1,076	18	6,116	8	35	1,387	99	347	322	272	123	76	15	3	94	1	66	96	22,673
14	647	178	7	73	6	15	24	55	5	7	49	0	46	8	12	133	11	15	39	39	27	33	16	2	64	0	2	7	1,520
15	698	185	12	85	6	18	19	58	9	9	61	0	52	6	16	131	13	31	24	28	15	13	12	1	25	0	5	11	1,543
16	1,328	205	29	105	5	22	15	132	30	38	180	1	144	3	9	681	79	329	301	292	172	96	15	1	96	4	33	51	4,396
17	2,341	469	41	160	9	38	24	187	43	43	241	1	186	9	17	897	240	344	300	434	263	223	54	4	203	8	36	60	6,875
18	6,674	1,384	98	347	17	83	47	508	102	125	774	2	547	10	37	2,665	257	1,863	1,067	923	610	260	39	3	358	12	127	365	19,304
19	5,223	1,007	75	271	13	61	37	422	76	105	672	2	420	12	27	2,326	248	1,064	1,423	1,197	1,094	348	66	5	650	26	86	209	17,164
20	10,725	2,099	180	656	35	159	104	820	180	211	1,302	4	803	39	67	4,783	735	1,845	2,626	3,288	2,340	1,068	227	19	1,705	68	190	359	36,635
21	6,207	1,309	62	225	12	69	39	338	62	85	789	1	277	17	27	3,342	385	986	1,864	1,817	2,421	511	88	6	1,063	109	83	203	22,397
22	2,360	540	19	101	8	32	30	101	20	23	212	0	89	21	14	1,085	166	241	379	497	320	494	164	17	509	12	22	42	7,519
23	589	151	5	65	5	20	29	30	3	4	47	0	18	7	12	309	30	28	105	102	73	91	96	10	131	1	3	8	1,972
24	487	161	5	101	6	29	42	82	3	7	51	0	39	5	13	244	16	13	70	62	54	43	33	19	129	0	1	4	1,721
25	2,000	435	13	81	8	38	29	72	11	15	195	0	55	11	17	1,053	94	190	431	449	368	273	66	6	449	14	15	46	6,432
26	956	210	3	22	2	11	3	33	3	6	113	0	20	2	4	610	36	70	216	160	296	50	8	0	174	13	5	18	3,045
27	389	72	3	16	1	4	2	22	3	4	37	0	29	0	1	81	5	26	21	18	13	5	1	0	8	0	6	9	776
28	6,740	1,441	36	207	8	50	17	295	38	60	962	1	213	9	28	3,375	158	1,232	777	586	540	145	31	1	514	3	53	6,387	23,909
Sum	79,021	16,945	1,383	6,763	486	1,647	1,274	9,635	1,588	1,943	10,118	55	14,589	245	575	27,666	3,123	10,511	11,519	11,787	9,610	4,299	1,072	125	6,821	290	1,091	8,434	242,615

Table A1-3. 2035 Average Weekday Transit Work Trips by District: Preferred Alternative

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	Sum
1	5,488	917	142	623	23	93	65	548	124	145	727	3	611	13	35	893	158	571	466	492	270	169	29	3	149	6	113	159	13,035
2	3,027	920	120	555	22	80	55	363	101	75	341	2	387	13	36	540	101	288	220	258	146	105	24	3	99	3	52	78	8,013
3	2,769	855	189	818	41	135	112	414	92	73	307	2	436	11	34	566	61	193	159	177	80	66	19	3	83	2	36	58	7,791
4	2,041	660	122	786	55	137	125	392	66	61	214	2	417	11	34	404	38	112	94	103	40	40	19	4	61	1	21	31	6,087
5	335	119	24	159	26	34	27	80	10	10	35	1	125	2	8	67	4	11	11	12	5	7	4	1	17	0	2	3	1,141
6	525	168	22	128	9	41	26	86	11	11	49	0	87	2	8	101	6	15	16	16	8	10	4	1	27	0	3	5	1,387
7	559	200	35	233	10	42	160	134	15	16	64	0	104	4	14	122	8	17	21	20	11	15	9	7	40	0	3	6	1,867
8	3,291	942	127	802	54	149	109	1,048	157	177	466	7	1,632	9	33	648	58	189	165	158	72	50	16	3	58	1	37	56	10,516
9	987	287	36	199	10	36	25	195	56	31	115	1	295	3	9	190	20	60	47	52	25	19	5	1	20	0	10	21	2,756
10	1,395	333	40	233	10	42	21	264	33	79	178	1	448	3	12	282	21	80	69	64	37	24	5	1	29	0	12	32	3,747
11	4,676	807	111	516	19	72	50	553	111	148	895	3	690	10	29	826	107	462	376	380	214	113	18	2	116	4	99	131	11,537
12	1,485	415	43	270	24	55	43	250	28	38	179	3	582	4	17	281	12	35	46	28	17	11	5	0	22	0	6	14	3,912
13	6,416	1,605	190	1,199	87	214	106	2,511	294	397	1,084	18	6,122	8	36	1,401	100	348	325	273	124	77	15	3	95	1	66	97	23,210
14	721	226	23	131	7	25	23	76	6	8	54	0	52	8	13	145	11	16	39	39	27	33	16	2	64	0	2	7	1,775
15	721	210	21	126	7	23	22	63	9	10	61	0	54	6	16	138	13	32	25	28	15	13	13	1	25	0	5	11	1,668
16	1,335	217	37	152	5	22	15	133	31	38	183	1	145	3	9	688	80	334	305	297	173	98	15	1	97	4	34	51	4,504
17	2,353	478	54	254	8	33	22	191	45	44	243	1	188	9	18	902	242	346	302	436	265	225	54	4	203	8	36	60	7,024
18	6,673	1,466	141	588	17	70	42	512	105	125	776	2	549	11	38	2,669	259	1,871	1,071	926	611	262	39	3	358	12	127	366	19,690
19	5,219	1,062	113	466	13	57	36	423	78	105	673	2	420	12	27	2,325	249	1,066	1,427	1,199	1,095	349	66	5	646	26	87	209	17,456
20	10,731	2,189	252	1,059	34	142	97	827	185	212	1,306	4	805	39	68	4,786	738	1,851	2,632	3,296	2,343	1,071	227	19	1,703	68	191	360	37,235
21	6,200	1,350	104	389	11	55	35	339	63	85	788	1	276	17	27	3,336	385	985	1,862	1,815	2,421	510	88	6	1,057	109	83	202	22,600
22	2,386	571	34	177	9	38	29	104	20	23	214	0	90	21	14	1,088	167	242	378	496	319	494	164	17	509	12	22	42	7,684
23	602	172	16	117	7	32	28	42	3	4	47	0	20	7	12	309	31	28	103	101	72	92	96	10	130	1	3	8	2,093
24	515	194	26	179	9	42	41	84	4	7	54	0	40	5	15	250	17	15	70	62	53	44	34	19	129	0	1	4	1,911
25	1,994	487	32	165	9	50	30	74	11	15	193	0	55	11	18	1,050	95	190	428	447	368	273	66	6	448	14	15	45	6,588
26	954	217	12	47	1	7	2	33	3	6	113	0	20	2	4	608	36	70	215	159	294	50	8	0	173	13	5	18	3,072
27	382	70	6	26	1	3	2	23	3	5	37	0	29	0	1	81	5	26	21	18	13	5	1	0	8	0	6	9	780
28	6,719	1,509	110	404	7	39	14	294	38	60	955	1	212	9	28	3,354	157	1,224	771	577	538	143	31	1	500	3	52	6,365	24,115
Sum	80,496	18,644	2,180	10,800	535	1,769	1,364	10,059	1,702	2,006	10,350	57	14,892	255	615	28,050	3,181	10,676	11,666	11,928	9,655	4,366	1,087	127	6,865	292	1,128	8,449	253,193

Table A1-4. 2035 Average Weekday Total Transit Trips by District: No-Build

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	Sum
1	19,317	2,262	349	833	35	153	84	1,258	312	293	3,284	12	1,136	23	75	3,327	550	1,755	1,622	2,100	688	346	47	4	388	10	222	334	40,819
2	8,251	4,161	579	819	32	131	69	835	316	158	1,406	9	665	27	97	1,514	428	815	584	1,066	318	223	38	4	218	5	85	146	22,998
3	4,042	1,272	1,892	1,302	47	166	105	722	223	107	613	9	525	16	72	711	143	322	256	370	104	82	20	3	98	2	38	68	13,330
4	2,882	708	487	2,223	106	301	134	909	166	103	326	21	627	18	83	508	63	172	188	195	65	50	22	4	75	1	21	43	10,501
5	445	109	77	222	195	65	39	112	16	13	46	26	165	4	12	74	8	20	15	23	8	9	5	1	19	0	3	5	1,736
6	633	182	82	361	34	314	50	168	28	19	69	6	126	8	17	115	14	33	25	42	17	15	6	2	36	0	4	9	2,415
7	649	198	80	228	20	68	544	162	21	20	78	7	123	12	19	134	13	28	29	39	18	19	14	10	49	0	4	7	2,595
8	5,993	1,173	430	1,767	85	235	127	4,016	530	490	959	109	3,500	16	56	1,066	124	404	430	422	152	85	22	4	103	2	52	96	22,447
9	1,845	389	125	380	14	50	28	532	281	71	219	9	480	4	16	281	40	120	86	117	42	28	6	1	32	1	13	30	5,239
10	2,475	453	73	332	13	54	25	823	120	795	476	12	928	4	17	446	48	184	163	185	66	37	7	1	45	1	20	47	7,851
11	12,267	1,683	351	648	26	104	65	1,157	293	336	5,134	12	1,105	15	52	1,978	282	1,180	920	1,192	392	185	24	3	203	6	187	206	30,004
12	1,833	345	55	239	67	54	56	452	49	56	193	275	954	5	16	271	13	42	48	33	17	10	5	0	19	0	6	14	5,129
13	10,227	2,078	347	1,637	137	277	112	5,894	701	864	1,820	200	18,922	12	53	1,947	180	654	637	581	212	112	20	3	138	2	90	138	47,998
14	702	206	18	104	8	27	41	69	8	9	60	2	51	241	52	148	17	22	48	61	34	64	48	3	93	1	3	8	2,147
15	924	272	66	216	11	35	25	101	20	15	98	2	72	29	168	176	35	57	42	65	22	31	23	2	39	1	6	15	2,567
16	4,971	572	97	223	9	37	21	375	92	91	803	4	321	7	23	3,317	343	1,319	1,331	1,655	509	241	27	2	307	7	64	138	16,906
17	5,089	988	134	264	12	52	30	312	90	75	577	2	266	15	40	2,116	1,931	840	764	2,377	544	576	91	6	500	11	56	104	17,863
18	12,499	2,269	267	566	23	110	57	895	232	231	2,098	7	833	17	67	6,514	717	12,026	3,524	3,070	1,177	490	56	4	667	17	236	954	49,622
19	10,976	1,581	206	461	16	77	44	792	148	192	1,549	5	704	20	44	5,565	648	3,557	7,994	5,755	2,866	721	103	6	1,598	44	132	494	46,298
20	22,059	3,438	429	956	43	201	122	1,257	322	334	2,700	9	1,083	65	112	10,000	2,766	3,983	7,688	20,932	5,594	2,459	390	26	4,721	108	273	618	92,688
21	8,784	1,712	119	295	14	81	45	484	99	122	1,248	3	372	27	37	5,098	775	1,732	4,227	5,676	9,963	930	133	8	2,199	262	109	349	44,901
22	3,831	772	56	153	11	44	37	156	37	35	346	1	123	47	40	1,630	583	462	746	1,532	611	2,147	530	29	1,911	21	30	74	15,994
23	621	175	9	82	6	23	33	41	6	6	59	0	24	21	22	352	60	46	144	215	106	337	617	36	318	2	3	13	3,381
24	492	163	6	105	7	30	46	84	4	7	52	0	40	6	15	246	18	14	72	68	57	60	91	337	149	5	1	4	2,182
25	2,524	529	33	114	10	47	34	107	21	22	273	1	77	21	25	1,442	258	335	938	1,573	833	924	203	13	2,199	33	20	78	12,687
26	977	218	4	24	2	12	3	35	4	7	121	0	22	2	5	646	45	83	263	247	661	69	11	2	242	255	5	20	3,983
27	791	120	13	30	1	5	3	47	10	13	175	0	52	1	3	169	20	171	71	85	28	11	1	0	15	0	74	17	1,928
28	8,641	1,635	57	227	9	52	18	328	51	69	1,105	1	234	10	31	3,715	215	2,254	1,086	867	655	175	35	1	575	4	61	16,169	38,280
Sum	154,739	29,663	6,442	14,811	993	2,805	1,994	22,124	4,201	4,552	25,890	742	33,531	696	1,268	53,506	10,339	32,630	33,938	50,545	25,760	10,437	2,597	513	16,958	801	1,819	20,196	564,489

Table A1-5. 2035 Average Weekday Total Transit Trips by District: Preferred Alternative

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	Sum
1	19,536	2,383	439	1,271	36	146	86	1,298	330	300	3,350	12	1,154	23	77	3,379	561	1,788	1,646	2,136	698	353	47	4	393	10	227	339	42,022
2	8,591	4,307	741	1,378	39	146	81	923	378	170	1,497	10	702	30	105	1,615	456	880	633	1,152	336	245	40	4	249	5	94	154	24,960
3	4,792	1,775	2,249	2,410	77	258	163	954	298	146	774	12	664	22	99	954	184	433	358	518	132	129	28	5	166	2	56	86	17,743
4	3,385	1,105	817	3,721	137	399	207	1,126	223	131	453	24	735	24	109	745	96	282	297	355	100	88	30	6	161	2	34	66	14,858
5	461	152	126	327	192	68	42	131	19	14	46	26	174	4	14	81	7	18	17	22	7	10	5	1	25	0	3	4	1,996
6	701	224	112	488	34	316	59	185	31	21	76	6	136	9	20	139	13	33	32	44	16	18	7	2	49	0	4	8	2,785
7	700	245	138	425	25	90	642	185	25	22	82	7	128	13	25	147	12	28	31	39	17	22	15	11	55	0	4	8	3,140
8	6,273	1,422	524	2,165	94	249	141	4,132	570	499	993	111	3,562	16	60	1,112	131	420	439	438	157	89	23	4	109	2	54	100	23,890
9	1,979	468	150	512	16	55	32	580	307	76	238	9	506	5	16	304	43	128	93	128	45	31	6	1	34	1	15	33	5,812
10	2,513	474	102	445	14	58	26	837	124	796	482	12	938	4	18	455	49	185	165	186	67	38	7	1	46	1	21	47	8,109
11	12,448	1,751	406	942	26	102	62	1,204	315	343	5,206	12	1,136	15	53	2,011	288	1,200	937	1,213	397	190	24	2	204	6	192	209	30,893
12	1,966	473	102	382	70	67	56	482	55	58	206	275	965	6	20	297	15	45	51	36	19	12	5	0	23	0	7	15	5,710
13	10,284	2,164	441	2,001	139	279	124	5,918	716	866	1,830	200	18,940	12	54	1,963	181	656	640	583	213	113	20	3	139	2	90	138	48,710
14	780	255	40	171	10	37	40	91	9	10	66	2	56	241	54	160	18	23	47	61	34	65	48	3	93	1	3	9	2,426
15	950	301	89	296	12	43	31	109	21	16	98	2	74	30	174	183	37	58	43	66	22	32	23	2	39	1	7	14	2,772
16	4,998	596	127	352	9	38	22	382	95	92	811	4	324	7	23	3,348	347	1,333	1,342	1,671	514	244	27	2	309	7	65	139	17,227
17	5,109	1,004	160	404	11	46	27	320	94	75	581	2	268	15	41	2,128	1,940	845	768	2,388	547	580	92	6	502	12	56	104	18,126
18	12,508	2,392	347	935	23	95	52	907	240	233	2,108	7	835	17	68	6,540	722	12,062	3,539	3,084	1,181	493	57	3	669	17	237	957	50,327
19	10,986	1,662	282	756	17	74	44	798	153	192	1,554	5	704	20	44	5,574	650	3,564	8,008	5,769	2,872	723	104	6	1,596	44	132	494	46,828
20	22,103	3,572	561	1,532	43	185	115	1,274	332	336	2,711	9	1,086	65	113	10,029	2,776	3,999	7,705	20,968	5,601	2,463	390	25	4,717	109	274	619	93,712
21	8,775	1,761	176	502	13	66	41	488	103	122	1,247	3	371	27	37	5,092	776	1,731	4,225	5,673	9,962	929	133	8	2,193	262	109	349	45,171
22	3,860	806	87	269	12	51	36	160	38	36	348	1	125	47	41	1,633	584	463	744	1,531	609	2,147	530	29	1,910	21	30	74	16,225
23	634	196	23	139	8	37	31	54	6	6	59	0	26	21	23	353	60	46	143	214	105	338	617	36	318	2	3	14	3,511
24	521	196	29	186	9	44	45	87	4	7	55	0	41	7	17	253	18	15	72	68	56	61	92	336	149	5	1	5	2,379
25	2,518	597	70	246	12	64	36	111	22	22	272	1	77	21	27	1,439	259	335	935	1,570	833	923	203	13	2,197	32	20	77	12,930
26	975	225	13	50	1	7	2	35	4	7	121	0	22	2	5	644	45	83	262	246	659	69	11	2	241	255	5	20	4,012
27	785	120	18	50	1	5	3	48	10	13	177	0	52	1	3	170	20	172	71	86	28	11	1	0	15	0	74	17	1,953
28	8,615	1,708	138	439	8	41	15	328	52	69	1,098	1	233	10	31	3,693	215	2,246	1,079	858	653	173	35	1	560	4	61	16,147	38,508
Sum	157,745	32,334	8,505	22,797	1,090	3,066	2,261	23,145	4,574	4,675	26,536	754	34,034	715	1,370	54,439	10,501	33,072	34,323	51,100	25,881	10,587	2,622	517	17,161	804	1,878	20,249	586,736

APPENDIX 2

Transit Line Listings

Table A2-1. 2035 No-Build Transit Lines in the Southwest Corridor

		Peak Headway	Off-peak Headway
<u>Light Rail</u>			
01Y2	MILW-UNION STATION	30	0
01Y	MILW-CLARKCOL TILL-P	15	15
<u>Commuter Rail</u>			
01CR	COM RAIL WILS-BEAV	30	0
<u>Streetcar</u>			
SC	SCAR LOWELL-NW NBCOD	15	15
SCJ	SCAR JOHN LAND-NW NB	15	15
SCLP	STRCAR EASTSIDE LOOP	15	15
<u>Tram</u>			
TRAM	MARQUAM HILL TRAM	5	5
<u>TriMet Buses - SW Corridor</u>			
02V	VERMONT via JEFF/COL	30	30
06M54	MLK JR To BH HWY	10	15
08J	JACKSON PARK TRIPPER	20	0
08JN	JACKSON PARK-NE 15TH	10	15
12BS	TIGARD TO PARKROSE	15	15
35M	MACADAM/GREELEY	15	30
36T	TUAL/PTLD CBD	40	0
37N	TUALATIN	60	60
38B	BOONES FRY JEFF/COL	30	0
39LC	LEWIS & CLARK	30	30
43TN	TAYLOR FY/WASH SQ JC	30	30
44BM	CAPITOL HWY/MOCKS CR	15	15
45GJ	GARDEN HOME JEFF/COL	30	30
56S	SCHOLLS FERRY RD	15	30
61X	MH/BVTN	20	0
64MT	MARQ HILL TIGARD	30	0
65M	MARQ HILL BARBUR	30	30
66MH	MARQ HILL HOLLYWOOD	30	0
68C	COLLINS CIR/MAR. HL	15	30
76B	BEAV/TUALATIN	15	15
78B	BEAV/LAKE OSWEGO	30	30
89T	TIGARD COMM	30	30
92JX	S BVTN EXP JEFF/COL	30	0
94XI	SHERWOOD PACIFIC EXP IB	30	30
94XO	SHERWOOD PACIFIC EXP OB	8	30
96TC	TUAL/COMMERCE CIR JC	20	0
96TM	TUAL/MOHAWK JEFF/COL	30	30
97ST	SHERWOOD TUALATIN	30	30
C190P	Marquam Hill Exp PRM	20	0
o2D	SMART-BARBUR	20	30

Table A2-2. 2035 Preferred Alternative Transit Lines in the Southwest Corridor

		Peak	Off-Peak
		Headway	Headway
<u>Light Rail</u>			
01PB	LRT CTC/BRIDGEPORT	15	15
01PT	LRT CTC/TIGARD	15	0
01Y2	MILW-UNION STATION	30	0
01Y	MILW-CLARKCOL TILL-P	15	15
<u>Commuter Rail</u>			
01CR	COM RAIL WILS-BEAV	30	0
<u>Streetcar</u>			
SC	SCAR LOWELL-NW NBCOD	15	15
SCJ	SCAR JOHN LAND-NW NB	15	15
SCLP	STRCAR EASTSIDE LOOP	15	15
<u>Tram</u>			
TRAM	MARQUAM HILL TRAM	5	5
<u>TriMet Buses - SW Corridor</u>			
02V	VERMONT via JEFF/COL	30	30
06M54	MLK JR To BH HWY	10	15
08J	JACKSON PARK TRIPPER	20	0
08JN	JACKSON PARK-NE 15TH	10	15
35M	MACADAM/GREELEY	15	30
36K	TUAL/LAKE OSWEGO	120	30
36T	TUAL/PTLD CBD	40	0
37N	TUALATIN	30	30
38B	BOONES FRY JEFF/COL	30	0
39LC	LEWIS & CLARK	30	30
43TN	TAYLOR FY/WASH SQ JC	30	30
44BM	PB/CAPITOL HWY/MOCKS CR	15	30
45GJ	GARDEN HOME JEFF/COL	20	30
56S	SCHOLLS FY ROAD	10	15
61X	MH/BVTN	20	0
66MH	MARQ HILL HOLLYWOOD	30	0
68C	COLLINS CIR/MAR. HL	15	30
76B	BEAV/TUALATIN	15	15
78B	BEAV/LAKE OSWEGO	30	30
89T	TIGARD COMM	30	30
92JX	S BVTN EXP JEFF/COL	30	0
93ST	SHERWOOD TIGARD	15	30
94XI	SHERWOOD PACIFIC EXP IB	30	30
94XO	SHERWOOD PACIFIC EXP OB	8	30
95SH	SHERWOOD HILLSBORO	20	30
96TC	TUAL/COMMERCE CIR JC	20	0
96TM	TUAL/MOHAWK JC	30	30
97ST	SHERWOOD TUALATIN	30	30
C190P	MARQUAM HILL EXP PRM	20	0
o2D	SMART-BARBUR	20	30