





Data Summary: Lake Washington Blvd Keep Moving Street 2021

Summer 2021 walking, biking, and driving data *Updated 2/22/2022*

Background

As a response to the global pandemic in 2020, we closed a section of Lake Washington Blvd to passthrough traffic to create more space for people to walk, bike, and play in a healthy way. The closure was every day in summer 2020. During the 2020/2021 school year, we closed the Boulevard again during school breaks. In summer 2021, we closed the Boulevard on summer weekends (Friday afternoon to Monday morning).



We collected data on the number of people walking, rolling, and biking on the Keep Moving Street as well as the number of people driving on nearby streets to understand how the Keep Moving Street was being used and its potential impacts to traffic in the neighborhood. This Data Summary shares data related to biking, walking, and driving collected as part of the summer 2021 Lake Washington Blvd Keep Moving Street.

Note: We shared a "<u>Preliminary Data Summary</u>" in November 2021 which included biking and driving data and weekend vs. weekday analysis. This is an updated report sharing detailed appendices, walking data (which needed more analysis because it was a manual count) as well as closer analysis of the number of people driving on Hunter Blvd S/38th Ave S during the Monday morning and Friday evening commute times.

High level summary

At a high level, we found a substantial number of people walking and biking on Lake Washington Blvd during the closures this summer (for example during the weekend of July 10-11, there were a total of 3,911 people counted biking on the Keep Moving Street).

We also found vehicle traffic on side streets was not higher during the weekend closures than during weekday non-closures, with the exception of Hunter Blvd S/S 38th St.

On Hunter Blvd S/S 38th St, vehicle counts were higher during the Keep Moving Street closures than during weekday non-closures. Speeds on that stretch averaged below the speed limit. Continue reading for steps to help prevent drivers from using Hunter Blvd S/S 38th St as a cut-through.

People biking on Lake Washington Blvd

Bicycle volumes taken on Lake Washington Blvd near S Angeline St¹ increased during the 2021 Keep Moving Street when compared to the Keep Moving Street in 2020 and the 1 Mile Keep Moving Street held during spring 2021. The graph below shows weekend bike totals during several different times throughout the pandemic.

During the weekend of July 10-11, there were a total of 3,911 people counted biking on the Keep Moving Street. This was the highest number measured since the Keep Moving Street was piloted in June 2020. It is more than twice as high as before Keep Moving Streets were implemented and compared to the shorter 1 mile Keep Moving Street.



Graph 1: Showing Lake Washington Blvd weekend bike counts.

For comparison, SDOT maintains permanent <u>bike counters</u> at several locations that are key points in the city's bike network. The Lake Washington Blvd Keep Moving Street bike count on Sunday, July 11, 2021 from 10 AM to 6 PM was 1,590. During the same period these counters recorded:

• 493 people biking on the I-90 trail where it enters the city

¹ Note that the bike counter location in April 2021 was different because the usual S Angeline St location is outside the 1 Mile Keep Moving Street. The location measured during the 1 Mile Keep Moving Street location was on Lake Washington Blvd S north of S Horton St, within the area closed to traffic.

- 2,806 people biking on the Fremont Bridge where several of the city's most popular bike routes converge
- 822 people biking on the primary bike route in and out of West Seattle at SW Spokane St on Harbor Island
- 573 people biking in downtown Seattle on the 2nd Ave protected bike lane

People walking on Lake Washington Blvd

Seattle Parks and Recreation Ambassadors were stationed at 3 locations along Lake Washington Blvd during the Keep Moving Street weekends to answer questions and direct people walking, biking, and driving. They also took 34 counts of people moving along Lake Washington Blvd over 2 weekends in September 2021. SDOT's standard <u>Public Life Study</u> guidebook provides a way to measure how people are passing through and using public spaces based on 10-minute counting periods. This work on Lake Washington Blvd focused on people walking or using mobility assistance devices like wheelchairs or crutches.

More people were counted walking or using mobility assistance devices on Lake Washington Blvd near Mt Baker Beach and Seward Park than near Stan Sayres Park. Hourly pedestrian use at the 2 endpoints were just over 400 people per hour, with 176 people per hour at Stan Sayres.



People Walking by Site

Graph 2: Showing the average number of people walking per hour by location: Mt Baker Beach (430); Stan Sayres (177), and Seward Park (410).

40% of people walking or using mobility assistance devices on Lake Washington Blvd were doing so alone, compared to 57% of people citywide. This indicates more social use of Lake Washington Blvd, which would be expected given the recreational nature of the area compared to other public spaces in the city such as neighborhood business districts and transit centers.

56% of people walking or using mobility assist devices on Lake Washington Boulevard appeared to the observer to be male, 44% female, and 0.5% appeared to express another gender identity. This is close to citywide observations of 58% male, 41% female, and 0.7% other gender identities.



People driving on nearby streets

Map showing vehicle counter locations.

To understand new travel patterns, we collected vehicle count data at the following locations:

- S Genesee St (east of 38th Ave S)
- S McClellan St (east of 31st Ave S
- Wilson Ave S (northwest of S Lucille St)
- Hunter Blvd S (south of S Horton St)
- Lake Washington Blvd S (south of S Angeline St)

S Genesee St, S McClellan St, and Wilson Ave S

On **weekdays**, S Genesee St, S McClellan St, and Wilson Ave S vehicle volumes continue to be lower than they were pre-pandemic, however, traffic volumes during this latter phase of the pandemic have increased from what they were during the early pandemic in spring and early summer 2020. In general, traffic volumes have been relatively stable since summer 2020. The pre-pandemic comparison figures come from the <u>2019 Seattle Traffic Report</u> and are based on 2018 data.



Graph 3: Showing the average daily weekday traffic along Lake Washington Blvd at 3 locations - S Genesee St, S McClellan St, and Wilson Ave S St, S McClellan St, and Wilson Ave S

Weekend vehicle volumes when the Keep Moving Street is active increased on S Genesee St and S McClellan St² from 2020 to 2021, however, remain below pre-pandemic weekday volumes. Weekend vehicle volumes at all 3 locations during Keep Moving Street closures are also below the weekday volumes. No pre-pandemic weekend data are reported here, because these counts are not collected through the annual Traffic Report process.



Graph 4: Showing the average weekend daily traffic at 3 locations - S Genesee St, S McClellan St, and Wilson Ave S

² The counter on Wilson Ave S malfunctioned in both May 2020 and July 2021 and so data for this location is less comprehensive, but still below weekday levels.

S Hunter St and 38th Ave S

This year, we placed additional counters to understand traffic volumes and speeds on 38th Ave S, Hunter Blvd S, and Mt Rainier Dr S in response to community requests. Two counters were placed on Hunter Blvd S between S Hinds St and S Horton St, with one counter on each side of the median summed to the total results below.

Pre-pandemic weekday averages were estimated at 3,300 vehicles in the 2020 SDOT Traffic Report, and 2021 volumes show weekday vehicle volumes were around 4,160 – indicating vehicle volumes in this location have increased.



Graph 5: Showing average daily traffic on Hunter Blvd S before and during the pandemic (July 2021)

The vehicle volume when the Keep Moving Street was in place was 4,360 vehicles, or about 200 more than weekday volumes (a 4.8% difference).



Graph 6: Showing average daily traffic on Hunter Blvd S when Keep Moving Street in place on weekday July 2021 and weekend July 2021.

Also, likely because the Keep Moving Street barricades were placed on Friday afternoons and removed Monday mornings, traffic volumes on Hunter Blvd S/S 38th St increased during the Friday evening and Monday morning peak travel times. On weekday evenings (3 PM to 8 PM) with no closure there were about 1,642 vehicles counted compared to Friday evening with the closure in place with 2,783 vehicles, a 69% increase. Similarly, on weekday mornings (6 AM to 11 AM) there were an average of 683 vehicles without the closure compared to 1,125 on Monday mornings with the closure, a 65% increase.

Vehicle speeds averaged 23 mph at the counter location, which has a posted 25 mph speed limit. The 85th percentile speed was 27 mph. (The 85th percentile speed is the speed at which 85% of drivers travel at or below. This is commonly used to analyze and set speed limits.)

A goal of Keep Moving Street efforts overall is to not overburden nearby residential streets with vehicle traffic. We're encouraged that vehicle speeds are lower than the speed limit, and we have the measures below in place or in progress to contribute to traffic calming.

Current measures include:

• **Speed cushions:** As part of <u>the Andover and Dakota Neighborhood Street Fund project</u>, in spring 2022, we are building crossing improvements at 38th Ave S and S Andover St to narrow 38th Ave S at the intersection. Narrow streets feel more constrained and serve as a tool for slowing drivers down. (The timing of this construction depends on resolution of the current concrete strike.)



Image showing changes to street at S Andover St and 38th Ave S adding speed cushions, new curb bulb, new curb ramps, and parking restrictions.

• Closures outside peak travel times: For the 2021 summer weekend closures, crews placed barricades after 12 PM on Fridays and removed them before 12 PM on Mondays. This was to create consistency for people walking and biking on the street, acknowledge staff capacity limits, and to minimize overtime. For future closures, whenever possible in terms of budget and crew capacity, we plan to place barricades after/before peak travel times on Fridays and Mondays to avoid driver diversion.

• Lower speed limit: In 2020, speeds were lowered on arterial streets across the city to 25 MPH. Hunter Blvd S and 38th Ave S have 25 mph speed limit signs posted and average speeds on Hunter Blvd S in mid-July 2021 were 23 MPH. <u>Here's a link to the City's speed limit map</u>.

We're seeing speed limit signs can improve public safety, even without changes in police enforcement or urban design. This finding is important because <u>enforcement disproportionately</u> <u>impacts Black people and other people of color</u>.

• Yard signs: If neighbors would like to add <u>educational yard signs</u> along their street, we have Vision Zero signs available for pickup at Park's Community Centers. The closest to the Mt Baker neighborhood is the Rainier Community Center, 4600 38th Ave S, (206) 386-1919. Please call in-advance to confirm they are available. If there is a neighbor willing to store signs for pickup, they can contact <u>Brian.Dougherty@Seattle.gov</u> with the amount needed and we can have them printed and delivered to the address provided.

After the Neighborhood Street Fund traffic calming project on 38th Ave S is installed, we'll return within 6 to 12 months to see how traffic is operating. Should Lake Washington Blvd be closed to people driving for events like the Keep Moving Street in summer 2022, we'll continue to observe.

Thank you to all who enjoy walking, rolling, and biking along Lake Washington and thank you to nearby neighbors and people driving for your patience with the change.

Appendix A: Vehicle volumes on Hunter Blvd S, north of S Hinds St (zoom in for larger text)

Seattle Department of Transportation

AUTOMATIC TRAFFIC COUNT- 1 Hour Detail Report

OUNTER: 3	139	CHAN: TOT	FLOW: TOTA	L LANE CODE	: STANDARD		
	11 Jul 2021 SUN	12 Jul 2021 MON	13 Jul 2021 TUE	14 Jul 2021 WED	08 Jul 2021 THURS	09 Jul 2021 FRI	10 Jul 2021 SAT
Interval							
1:00	12	19	14	17	16	18	
2:00	5	13	6	7	8	5	
3:00	4	6	3	3	3	2	
4:00	1	1	0	0	0	2	
5:00	7	11	9	8	9	8	
6:00	23	47	24	25	27	12	
7:00	64	108	65	70	72	43	
8:00	169	283	170	176	189	129	
9:00	230	384	242	251	263	175	
10:00	200	303	203	210	220	167	
11:00	186	206	187	187	194	198	
12:00	192	198	188	194	196	203	
13:00	201	190	203	209	213	252	
14:00	217	187 221	221	222	232	297	
15:00			277		317	478	
16:00	334	240	355	367	396	623	
17:00	356	282	373	386	413	613	
18:00 19:00	366	313	381 291	403	427	613	
	280			302	317	456	
20:00	195	165	203	212	220	300 239	
21:00	153	126	157	164	172		
22:00 23:00	114	64 44	113 67	120	126 79	205	
23:00	41	27	42	49	53	93	
Daily Total	3,675	3,657	3,794	3,942	4,162	5,264	5,
Dally Total	5,075	5,057	5,794	5,942	4,102	5,204	э,
AM Peak Vol	241	400	253	263	272	203	384
AM Peak Hr	08:15-9:15	08:30-9:30	08:15-9:15	08:15-9:15	08:15-9:15	11:00-12:00	10:15-11:1
AM Peak Fac	0.837	0.826	0.855	0.843	0.829	0.806	0.835
AM 15min Hi	09:00	09:00	09:00	09:00	09:00	12:00	11:00
PM Peak Vol	370	319	394	417	439	633	429
PM Peak Hr	16:30-17:30	16:45-17:45	16:30-17:30	16:30-17:30	16:30-17:30	16:15-17:15	14:30-15:3
PM Peak Fac	0.984	0.839	0.966	0.939	0.930	0.925	0.933
PM 15min Hi	17:15	17:15	17:00	17:15	17:15	17:00	15:00
	2,255	2,244	2,358	2,448	2,594	3,557	3,071
Max8 Vol	1						
Max8 Vol Max8 %/DT	0.614	0.614	0.622	0.621	0.623	0.676	0.608

- Average Daily Traffic (ADT) =
- Average Weekday Traffic (AWDT) =
 - AWDT Max8 Volume =
 - AWDT AM Peak Hour Volume =
 - AWDT PM Peak Hour Volume =
- based on 7 days 4,164 based on 5 weekday
- 63.4% of AWDT 2,640

4,221

- 278 based on 5 weekday
 - based on 5 weekday 440

Appendix B: Vehicle speeds on Hunter Blvd S, north of S Hinds St (zoom in for larger text)

Southbound vehicles:

	ursday, 7/8													ED: :
.5/2021	ursday, 7/1	In					rand Totals	Creed of				76	S HINDS ST, 1097	STREET: :
							SB SB	rly Averages						
70 · < 200	65 - < 70	60 - < 65	55 - < 60	50 - < 55	45 - < 50	40 - < 45	35 - < 40	30 - < 35	25 - < 30	20 - < 25	15 - < 20	0- < 15	Total	mph
< 200	0.0	0.0	0.0	0.0	0.0	0.3	0.1	1.1	4.1	5.0	2.7	0.0	13.4	12:00 AM
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.4	2.6	2.1	1.6	0.6	7.6	1:00 AM
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	1.3	2.6	0.9	0.1	5.1	2:00 AM
0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.4	0.7	0.4	0.3	0.0	2.0	3:00 AM
0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.7	1.9	0.7	0.4	4.0	4:00 AM
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.9	1.7	3.0	0.7	0.1	6.7	5:00 AM
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	5.3	4.7	1.9	0.0	12.7	6:00 AM
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.9	10.4	18.7	7.6	0.6	39.6	7:00 AM
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	2.9	19.3	35.6	12.1	1.1	71.4	8:00 AM
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	2.6	17.0	41.3	17.7	4.4	83.1	9:00 AM
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	19.9	45.9	25.1	6.6	99.9	10:00 AM
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	4.1	23.1	61.0	23.1	5.1	116.9	11:00 AM
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	4.1	31.1	56.9	29.0	4.1	125.7	12:00 PM
0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	3.9	33.7	71.4	30.6	5.9	145.9	1:00 PM
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	5.0	39.9	85.6	33.0	5.3	169.0	2:00 PM
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	5.1	58.4	112.3	37.7	2.9	216.7	3:00 PM
0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	5.7	61.4	125.3	35.7	2.0	231.1	4:00 PM
0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.9	7.4	61.9	129.9	31.6	3.1	234.9	5:00 PM
0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.7	4.3	52.7	92.3	32.1	2.3	184.6	6:00 PM
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	4.7	32.9	66.6	16.7	2.0	123.4	7:00 PM
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	5.1	28.1	56.3	16.7	2.0	108.9	8:00 PM
0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	1.1	18.3	48.4	13.4	1.3	83.0	9:00 PM
0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	2.3	11.6	25.7	11.4	1.1	52.7	10:00 PM
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.6	5.7	15.6	5.6	1.0	30.1	11:00 PM
0.0	0.0	0.0	0.1	0.1	0.0	1.1	8.4	68.3	541.9	1108.3	388.0	52.1	2168.4	Daily Average
	2.2%)	75 vehicles (82	.8 mph 124	ge 17.8 - 27	Pace Ran		0 mph	Maximum 56	mph	inimum 10.1	h M	23.0 mp	Average (Mean)	
							90%	85%	50%	15%	10%	5	Percentile Speeds	
							27.7	26.7	23.0	19.2	18.2)	(mph)	
		ob	<u>75 m</u>	imph	69	55 mph		45 mc	mph	35	25 mph		Speeds Exceeded	
			0% (6 (0)		0.0% (1)		0.0%	(69)		5% (4340)			
							and Totals	Study (
70	65 -	60 -	55 -	50 -	45 -	40 -	35 -	30 -	25 -	20 -	15 -	0 -		
< 200	< 70	< 65	< 60	< 55	< 50	< 45	< 40	< 35	< 30	< 25	< 20	< 15	Total	
C	0	0	1	1	0	8	59	478	3793	7758	2716	365	15179	SB SB
0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.4%	3.1%	25.0%	51.1%	17.9%	2.4%		

Northbound vehicles:

	ursday, 7/8/ ursday, 7/1											s	HUNTER ER BLVD N/O S HINDS ST	CATED: :
							and Totals	Speed G						
							NB NB	irly Averages	Ηοι					
70 - < 200	65 - < 70	60 - < 65	55 - < 60	50 - < 55	45 - < 50	40 - < 45	35 - < 40	30 - < 35	25 - < 30	20 - < 25	15 - < 20	0- < 15	Total	mph
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6	1.4	2.9	1.7	0.0	6.7	12:00 AM
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.6	1.0	0.7	0.1	2.9	1:00 AM
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	1.6	0.1	0.0	2.3	2:00 AM
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.4	0.4	0.0	0.0	1.1	3:00 AM
0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3	0.4	2.4	0.7	0.1	4.3	4:00 AM
0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.1	1.1	5.9	7.0	1.6	0.0	16.0	5:00 AM
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	3.3	16.1	17.9	3.4	1.0	42.4	6:00 AM
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	3.4	33.1	53.7	10.6	1.3	102.4	7:00 AM
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	39.1	73.7	18.7	3.4	139.3	8:00 AM
0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	3.4	32.9	63.4	24.3	6.4	130.7	9:00 AM
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.3	22.9	59.3	29.7	9.6	123.0	10:00 AM
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	2.0	26.7	52.6	27.7	6.4	115.9	11:00 AM
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	29.3	56.4	24.0	5.1	117.6	12:00 PM
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	2.6	28.3	52.1	23.4	5.9	112.6	1:00 PM
0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.3	2.9	24.3	61.6	28.9	5.4	123.4	2:00 PM
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	2.4	30.9	67.6	32.3	2.0	135.6	3:00 PM
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	4.1	27.3	66.1	26.9	4.9	129.4	4:00 PM
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	3.3	29.0	69.4	24.0	6.7	132.7	5:00 PM
0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	2.6	29.6	56.9	22.4	2.3	114.1	6:00 PM
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	2.7	18.7	41.7	18.0	3.5	84.7	7:00 PM
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.3	13.0	33.6	17.0	2.0	67.1	8:00 PM
0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	1.4	9.3	27.1	12.6	2.7	53.4	9:00 PM
0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	1.0	5.4	16.0	6.4	1.3	30.4	10:00 PM
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	3.0	7.9	4.7	0.4	16.9	11:00 PM
0.0	0.0	0.0	0.0	0.0	0.3	1.0	4.7	48.4	427.8	892.2	359.9	70.6	1805.0	Daily Average
	0.0%)	37 vehicles (80	.9 mph 100	ge 17.9 - 27	Pace Rar		8 mph	Maximum 49	mph	linimum 10.	nph M	22.6	Average (Mean)	
							90%	85%	50%	15%	10%		Percentile Speeds	
							27.6	26.6	22.7	18.7	17.5		(mph)	
			75 m	5 mph		55 mph		45 mp	mph	-	25 mph		Speeds Exceeded	
			0% (% (0)		0% (0)		0.0% (6 (42)		5.7% (3354)		Speeds Exceeded	
							and Totals	Study G						
70 -	65 -	60 -	55 -	50 -	45 -	40 -	35 -	30 -	25 -	20 -	15 -	0 -		
< 200	< 70	< 65	< 60	< 55	< 50	< 45	< 40	< 35	< 30	< 25	< 20	< 15	Total	
0	0	0	0	0	2	7	33	336	2976	6204	2501	491	12550	NB NB
0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.3%	2.7%	23.7%	49.4%	19.9%	3.9%		