Meydenbauer Bay Park Phasing Report APPENDICES

February 21, 2025

Bellevue Parks & Community Services

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2010 Meydenbauer Bay Park and Land Use Plan: https://bellevuewa.gov/city-government/departments/parks/planning-and-development/studies-plans/meydenbauer-bay-park-plan

City of Bellevue WA
MEYDENBAUER BAY PARK EXPANSION
Bellevue, Washington

PRE-DESIGN
PHASING REPORT BUDGETARY ESTIMATE
January 14, 2025

JMB CONSULTING GROUP

JMB CONSULTING GROUP

4320 29th Avenue W
Seattle, Washington 98199
Tel: 206.708.7280

January 14, 2025

Stephanie Woirol
Berger Partnership
1927 Post Alley
Suite 2
Seattle, Washington 98101

Re: City of Bellevue WA
Subject: Meydenbauer Bay Park Expansion
Bellevue, Washington

Dear Stephanie:

In accordance with your instructions, we enclose our cost estimate for the project referenced above. This cost estimate is a statement of reasonable and probable construction cost. It is not a prediction of low bid.

We would be pleased to discuss this report with you further at your convenience.

Sincerely,

Jon Bayles

JMB Consulting Group LLC 23-013

Enclosures

BASIS OF PHASING REPORT BUDGETARY ESTIMATE

The work in the following pages is not intended to be a cost estimate, but a tool to assist in establishing budgets and guiding design decisions. The numbers represent high level allowances for structures, materiality, constructability, and regulation requirements. Numbers reflect everything that could happen without delving into assumptions of value engineering.

Evolution of design is expected. Most parks of this complexity are estimated higher than will be built; design and detailing is always right-sized to fit budgets, and not all elements will be prioritized or realized in the way they have been priced.

Every area of the site is costed as if it were to be pursued as a separate project. Realistically multiple projects will be undertaken at once and cost efficiencies found in mobilization, A&E, inspections, permitting, project management, and construction monitoring. Other efficiencies may be found by exploring various contractor delivery methods.

The pricing is based on Q1 2025$, therefore, escalation is excluded. Once a schedule for construction is developed, appropriate escalation rates should be applied.

OVERALL SUMMARY

$x1,000

Options

Upland Work

1a Streets: 100th Ave SE/Bellevue Place	4,903
1b Streets: Gateway Intersection	2,003
1c Streets: Lake Washington Blvd NW	2,746
2a Gateway: Site Work	35,607
2b Gateway: Pavilion	7,005
2c Gateway: Climate Control @ Pavilion	1,472
2d Gateway: Stair	981
2e Gateway: Bridge to Bay Connector	3,898
3 Sunset Terraces: 99th Ave SE Park Corner	2,806
4 Parcel East of 100th Avenue SE	2,752
	64,172

In-water & Shoreline Work

5 Oversight	550
6a Bay Connector: Walkway	13,194
6b Bay Connector: Stair	1,472
6c Bay Connector: Elevator	5,951
7a Shoreline: Promenade	6,975
7b Shoreline: Ecological Edge	6,034
7c Shoreline: Ice House	1,962
7d Shoreline: P1 / Beach House Connector	3,802
8a Marina: Revamped Pier 1	3,188
8b Marina: Shift Pier 2	926
8c Marina: New Pier 2 or 3	3,734
	47,788

TOTAL Upland Work In-water & Shoreline Work	***111,960***

	Quantity	*Unit*	*Rate*	*Total*
1a Streets: 100th Ave SE/Bellevue Place				
Mobilize	1	ls	228,000.00	228,000
Erosion control	32,100	sf	1.50	48,150
Protect existing	32,100	sf	0.75	24,075
Site clearance	32,100	sf	1.50	48,150
Mass ex	32,100	sf	1.00	32,100
Fine grade	32,100	sf	2.00	64,200
Agg base, vehiclular paving	16,000	sf	5.50	88,000
Agg base, ped paving	3,000	sf	3.50	10,500
Curb	1,330	lf	25.00	33,250
Paving, veh	16,000	sf	12.00	192,000
Paving, ped	3,000	sf	15.00	45,000
Retaining wall	1,151	sf	120.00	138,060
Landscape	13,100	sf	25.00	327,500
Storm	32,100	sf	3.50	112,350
Storm Water quality/Filtration	32,100	sf	10.00	321,000
Lighting	32,100	sf	2.50	80,250
Utility relocates	32,100	sf	22.00	706,200
Site remediation	1.0%		2,498,785.00	24,988
Work restrictions	5.0%		2,523,772.85	126,189
Indirects on construction (GCs, fee, etc)	32,100	sf	14.86	476,993
CONSTRUCTION TOTAL				**3,126,955**
Public Art Budget	1.5%		3,126,954.56	46,904
Sales Tax (RTA)	10.2%		3,173,858.88	323,734
Contingency	15.0%		3,497,592.49	524,639
A & E	15.0%		4,022,231.36	603,335
Permits, Testing, Inspections, and Project Management	6.0%		4,625,566.06	277,534
SOFT COST TOTAL				**1,776,145**
				-
				4,903,100

	Quantity	*Unit*	*Rate*	*Total*
1b Streets: Gateway Intersection				
Mobilize	1	ls	93,000.00	93,000
Erosion control	5,800	sf	1.50	8,700
Protect existing	5,800	sf	1.50	8,700
Site clearance	5,800	sf	3.00	17,400
Mass ex	5,800	sf	12.00	69,600
Fine grade	5,800	sf	4.00	23,200
Agg base, vehiclular paving	5,800	sf	5.50	31,900
Curb	100	lf	25.00	2,500
Paving, veh	5,800	sf	65.00	377,000
Storm	5,800	sf	7.00	40,600
Storm Water quality/Filtration	5,800	sf	20.00	116,000
Lighting	5,800	sf	20.00	116,000
Utility relocates	5,800	sf	20.00	116,000
Signalization	EXCLUDED			
Site remediation	1.0%		1,020,600.00	10,206
Work restrictions	5.0%		1,030,806.00	51,540
Indirects on construction (GCs, fee, etc)	5,800	sf	33.59	194,822
CONSTRUCTION TOTAL				**1,277,169**
Public Art Budget	1.5%		1,277,168.63	19,158
Sales Tax (RTA)	10.2%		1,296,326.16	132,225
Contingency	15.0%		1,428,551.43	214,283
A & E	15.0%		1,642,834.15	246,425
Permits, Testing, Inspections, and Project Management	6.0%		1,889,259.27	113,356
SOFT COST TOTAL				**725,446**
				-
				2,002,615

	Quantity	*Unit*	*Rate*	*Total*
1c Streets: Lake Washington Blvd NW				
Mobilize	1	ls	128,000.00	128,000
Erosion control	11,000	sf	3.00	33,000
Protect existing	11,000	sf	1.50	16,500
Site clearance	11,000	sf	3.00	33,000
Mass ex	11,000	sf	12.00	132,000
Fine grade	11,000	sf	2.00	22,000
Agg base, ped paving	5,000	sf	3.50	17,500
Curb	490	lf	35.00	17,150
Paving, veh driveway	2	ea	10,000.00	20,000
Paving, ped	5,000	sf	15.00	75,000
Retaining wall	2,790	sf	120.00	334,800
Screen fence	300	lf	325.00	97,500
Landscape	6,000	sf	16.00	96,000
Storm	11,000	sf	1.75	19,250
Storm Water quality/Filtration	11,000	sf	5.00	55,000
Lighting	11,000	sf	2.50	27,500
Utility relocates	11,000	sf	25.00	275,000
Signalization	EXCLUDED			
Work restrictions	5.0%		1,399,200.00	69,960
Indirects on construction (GCs, fee, etc)	11,000	sf	24.04	264,449
CONSTRUCTION TOTAL				**1,733,609**
Public Art Budget	1.5%		1,733,608.80	26,004
Sales Tax (RTA)	10.2%		1,759,612.93	179,481
Contingency	15.0%		1,939,093.45	290,864
Site remediation	1.0%		2,229,957.47	22,300
A & E	15.0%		2,252,257.04	337,839
Permits, Testing, Inspections, and Project Management	6.0%		2,590,095.60	155,406
SOFT COST TOTAL				**1,011,893**
				-
				2,745,501

	Quantity	*Unit*	*Rate*	*Total*
2a Gateway: Site Work				
Mobilize	1	ls	1,650,000.00	1,650,000
Erosion control	56,300	sf	2.00	112,600
Protect existing	56,300	sf	2.00	112,600
Site clearance	56,300	sf	2.25	126,675
Mass ex	56,300	sf	2.75	154,825
Fine grade	56,300	sf	2.00	112,600
Agg base, vehiclular paving	21,000	sf	5.50	115,500
Agg base, ped paving	16,800	sf	3.50	58,800
Curb	78	lf	25.00	1,944
Paving, veh	21,000	sf	12.00	252,000
Paving, ped	16,800	sf	25.00	420,000
Retaining wall	5,800	sf	120.00	696,000
Landscape	18,500	sf	25.00	462,500
Plaza on grade, open to sky	8,000	sf	65.00	520,000
Plaza on structure, open to sky	8,000	sf	335.00	2,680,000
Water feature	1	ls	750,000.00	750,000
Elevated walkways, veg screen	11,000	sf	730.00	8,030,000
Stair	See 2d			
Storm	56,300	sf	3.50	197,050
Storm Water quality/Filtration	56,300	sf	10.00	563,000
Lighting	56,300	sf	7.00	394,100
Utility relocates	56,300	sf	5.00	281,500
Demo buildings	25,256	sf	18.00	454,608
Signalization	EXCLUDED			
Site remediation	1.0%		18,146,302.44	181,463
Work restrictions	5.0%		18,327,765.47	916,388
Indirects on construction (GCs, fee, etc)	56,300	sf	61.53	3,463,948
CONSTRUCTION TOTAL				**22,708,101**
Public Art Budget	1.5%		22,708,101.42	340,622
Sales Tax (RTA)	10.2%		23,048,722.94	2,350,970
Contingency	15.0%		25,399,692.68	3,809,954
A & E	15.0%		29,209,646.58	4,381,447
Permits, Testing, Inspections, and Project Management	6.0%		33,591,093.57	2,015,466
SOFT COST TOTAL				**12,898,458**
				-
				35,606,559

	Quantity	*Unit*	*Rate*	*Total*
2b Gateway: Pavilion				
New building	6,000	sf	595.00	3,570,000
Site remediation	1.0%		3,570,000.00	35,700
Work restrictions	5.0%		3,605,700.00	180,285
Indirects on construction (GCs, fee, etc)	6,000	sf	113.58	681,477
CONSTRUCTION TOTAL				**4,467,462**
Public Art Budget	1.5%		4,467,462.30	67,012
Sales Tax (RTA)	10.2%		4,534,474.23	462,516
Contingency	15.0%		4,996,990.61	749,549
A & E	15.0%		5,746,539.20	861,981
Permits, Testing, Inspections, and Project Management	6.0%		6,608,520.08	396,511
SOFT COST TOTAL				**2,537,569**
				-
				7,005,031
2c Gateway: Climate Control @ Pavilion				
New building, net add for climate	6,000	sf	125.00	750,000
Site remediation	1.0%		750,000.00	7,500
Work restrictions	5.0%		757,500.00	37,875
Indirects on construction (GCs, fee, etc)	6,000	sf	23.86	143,168
CONSTRUCTION TOTAL				**938,543**
Public Art Budget	1.5%		938,542.50	14,078
Sales Tax (RTA)	10.2%		952,620.64	97,167
Contingency	15.0%		1,049,787.94	157,468
A & E	15.0%		1,207,256.13	181,088
Permits, Testing, Inspections, and Project Management	6.0%		1,388,344.55	83,301
SOFT COST TOTAL				**533,103**
				-
				1,471,645

	Quantity	*Unit*	*Rate*	*Total*
2d Gateway: Stair				
Stair	1	ls	500,000.00	500,000
Site remediation	1.0%		500,000.00	5,000
Work restrictions	5.0%		505,000.00	25,250
Indirects on construction (GCs, fee, etc)	1	ls	95,445.00	95,445
CONSTRUCTION TOTAL				**625,695**
Public Art Budget	1.5%		625,695.00	9,385
Sales Tax (RTA)	10.2%		635,080.43	64,778
Contingency	15.0%		699,858.63	104,979
A & E	15.0%		804,837.42	120,726
Permits, Testing, Inspections, and Project Management	6.0%		925,563.04	55,534
SOFT COST TOTAL				**355,402**
				-
				981,097
2e Gateway: Bridge to Bay Connector				
Allow	2,838	sf	700.00	1,986,600
Site remediation	1.0%		1,986,600.00	19,866
Work restrictions	5.0%		2,006,466.00	100,323
Indirects on construction (GCs, fee, etc)	2,838	sf	133.62	379,222
CONSTRUCTION TOTAL				**2,486,011**
Public Art Budget	1.5%		2,486,011.37	37,290
Sales Tax (RTA)	10.2%		2,523,301.54	257,377
Contingency	15.0%		2,780,678.30	417,102
A & E	15.0%		3,197,780.05	479,667
Permits, Testing, Inspections, and Project Management	6.0%		3,677,447.05	220,647
SOFT COST TOTAL				**1,412,083**
				-
				3,898,094

	Quantity	*Unit*	*Rate*	*Total*
3 Sunset Terraces: 99th Ave SE Park Corner				
Mobilize	1	ls	130,000.00	130,000
Erosion control	33,600	sf	1.50	50,400
Protect existing	33,600	sf	0.75	25,200
Site clearance	33,600	sf	1.50	50,400
Mass ex	33,600	sf	1.00	33,600
Fine grade	33,600	sf	2.00	67,200
Agg base, ped paving	4,868	sf	3.50	17,038
Paving, ped	4,868	sf	15.00	73,020
Retaining wall	1,810	sf	140.00	253,330
Fence/Screen	75	lf	325.00	24,375
Rockery walls	424	lf	70.00	29,680
Walking trails, stepping stone	720	sf	60.00	43,200
Walking trails, mulch	1,700	sf	1.00	1,700
Play surface	2,000	sf	35.00	70,000
Play equipment	1	ls	40,000.00	40,000
Play shelter	1	ls	80,000.00	80,000
Misc bike racks, trash/recycle/compost, tables, bollards, etc	1	ls	20,000.00	20,000
Seating	119	lf	300.00	35,700
Plantings+irrigation, 75% seed / 25% shrub	24,312	sf	8.00	194,496
Trees	15	ea	1,500.00	22,500
Utility relocates	33,600	sf	5.00	168,000
Site remediation	1.0%		1,429,839.00	14,298
Work restrictions	5.0%		1,444,137.39	72,207
Indirects on construction (GCs, fee, etc)	1	ls	272,941.97	272,942
CONSTRUCTION TOTAL				**1,789,286**
Public Art Budget	1.5%		1,789,286.23	26,839
Sales Tax (RTA)	10.2%		1,816,125.52	185,245
Contingency	15.0%		2,001,370.32	300,206
A & E	15.0%		2,301,575.87	345,236
Permits, Testing, Inspections, and Project Management	6.0%		2,646,812.25	158,809
SOFT COST TOTAL				**1,016,335**
				-
				2,805,621

		Quantity	*Unit*	*Rate*	*Total*
4 Parcel East of 100th Avenue SE					
	Mobilize	1	ls	128,000.00	128,000
	Erosion control	22,500	sf	1.50	33,750
	Protect existing	22,500	sf	0.75	16,875
	Site clearance	22,500	sf	1.50	33,750
	Mass ex/Rough grade	22,500	sf	6.00	135,000
	Fine grade	22,500	sf	2.00	45,000
	Agg base, vehicular paving	10,800	sf	5.50	59,400
	Agg base, ped paving	950	sf	3.50	3,325
	Curb	40	lf	25.00	1,000
	Paving, veh	10,800	sf	12.00	129,600
	Paving, ped	950	sf	15.00	14,250
	Retaining wall	1,175	sf	120.00	141,000
	Landscape	10,750	sf	25.00	268,750
	Storm, sheet flow	22,500	sf	3.50	78,750
	Lighting	22,500	sf	2.50	56,250
	Utility relocates	22,500	sf	5.00	112,500
	Demo buildings	8,084	sf	18.00	145,512
*****	Site remediation	1.0%		1,402,712.00	14,027
	Work restrictions	5.0%		1,416,739.12	70,837
	Indirects on construction (GCs, fee, etc)	22,500	sf	11.90	267,764
	CONSTRUCTION TOTAL				**1,755,340**
	Public Art Budget	1.5%		1,755,339.77	26,330
	Sales Tax (RTA)	10.2%		1,781,669.87	181,730
	Contingency	15.0%		1,963,400.19	294,510
	A & E	15.0%		2,257,910.22	338,687
	Permits, Testing, Inspections, and Project Management	6.0%		2,596,596.75	155,796
	SOFT COST TOTAL				**997,053**
					-
					2,752,393

***** This assumes no contamination from adjacent sites will be covered by project budgets

	Quantity	Unit	Rate	Total

5 Oversight

In-water and shoreline work comes with significant process and cost. If all related work happens concurrently there will be cost efficiencies associated with the complexities of turbidity monitoring, fish exclusion, mitigation fees, and post construction monitoring. If work happens in multiple phases, some to all of these costs may need to be incorporated for each phase.

Construction Oversite	1	ls	50,000.00	50,000
Turbidity Monitoring	1	ls	50,000.00	50,000
Fish Exclusion	2	Ssn	25,000.00	50,000
Post Construction Monitoring	1	ls	200,000.00	200,000
Mitigation-in-lieu fee*	1	ls	200,000.00	200,000
				550,000
				-
				550,000

* Assumes significant on-site mitigation is occurring, and minor additional mitigation will be needed. This additional mitigation could be a fee in-lieu of site work, or work elsewhere in the park system.

	Quantity	*Unit*	*Rate*	*Total*
6a Bay Connector: Walkway				
Mobilize	1	ls	588,000.00	588,000
Traffic control	1	ls	114,400.00	114,400
Protect existing	1	ls	171,600.00	171,600
Erosion control including silt curtain & dewatering	1	ls	350,000.00	350,000
Elevated walkways	5,700	sf	920.00	5,244,000
Site remediation	5.0%		6,468,000.00	323,400
Work restrictions	5.0%		6,791,400.00	339,570
Indirects on construction (GCs, fee, etc)	5,700	sf	225.19	1,283,575
CONSTRUCTION TOTAL				**8,414,545**
Public Art Budget	1.5%		8,414,544.60	126,218
Sales Tax (RTA)	10.2%		8,540,762.77	871,158
Contingency	15.0%		9,411,920.57	1,411,788
A & E	15.0%		10,823,708.66	1,623,556
Permits, Testing, Inspections, and Project Management	6.0%		12,447,264.96	746,836
SOFT COST TOTAL				**4,779,556**
				-
				13,194,101
6b Bay Connector: Stair				
Stair	1	ls	750,000.00	750,000
Site remediation	1.0%		750,000.00	7,500
Work restrictions	5.0%		757,500.00	37,875
Indirects on construction (GCs, fee, etc)	1	sf	143,167.50	143,168
CONSTRUCTION TOTAL				**938,543**
Public Art Budget	1.5%		938,542.50	14,078
Sales Tax (RTA)	10.2%		952,620.64	97,167
Contingency	15.0%		1,049,787.94	157,468
A & E	15.0%		1,207,256.13	181,088
Permits, Testing, Inspections, and Project Management	6.0%		1,388,344.55	83,301
SOFT COST TOTAL				**533,103**
				-
				1,471,645

	Quantity	*Unit*	*Rate*	*Total*
6c Bay Connector: Elevator				
Elevator	1	ls	2,625,000.00	2,625,000
Site remediation	1.0%		2,625,000.00	26,250
Work restrictions	5.0%		2,651,250.00	132,563
Indirects on construction (GCs, fee, etc)	1	ls	501,086.25	501,086
CONSTRUCTION TOTAL				**3,284,899**
Public Art Budget	1.5%		3,284,898.75	49,273
Sales Tax (RTA)	10.2%		3,334,172.23	340,086
Contingency	15.0%		3,674,257.80	551,139
A & E	15.0%		4,225,396.47	633,809
Permits, Testing, Inspections, and Project Management	6.0%		4,859,205.94	291,552
Annual elevator maintenance, Yr 1-5	5		60,000.00	300,000
Annual elevator maintenance, Yr 6-10	5		100,000.00	500,000
SOFT COST TOTAL				**2,665,860**
				-
				5,950,758

	Quantity	*Unit*	*Rate*	*Total*
7a Shoreline: Promenade				
Mobilize	1	ls	324,000.00	324,000
Erosion control	29,500	sf	1.50	44,250
Protect existing	29,500	sf	0.75	22,125
Site clearance	29,500	sf	1.50	44,250
Mass ex	29,500	sf	8.25	243,500
Fine grade	29,500	sf	2.00	59,000
Agg base, ped paving	16,000	sf	3.50	56,000
Paving, ped	16,000	sf	25.00	400,000
Retaining wall - see Ecological Edge		sf		
Landscape	13,500	sf	40.00	540,000
Site amenities (fencing/rails/seating, etc)	16,000	sf	45.00	720,000
Storm	29,500	sf	3.50	103,250
Storm Water quality/Filtration	29,500	sf	10.00	295,000
Lighting	29,500	sf	3.50	103,250
Utility relocates	29,500	sf	20.34	600,000
Signalization	EXCLUDED			
Site remediation	1.0%		3,554,625.00	35,546
Work restrictions	5.0%		3,590,171.25	179,509
Indirects on construction (GCs, fee, etc)	29,500	sf	23.00	678,542
CONSTRUCTION TOTAL				**4,448,222**
Public Art Budget	1.5%		4,448,222.18	66,723
Sales Tax (RTA)	10.2%		4,514,945.51	460,524
Contingency	15.0%		4,975,469.95	746,320
A & E	15.0%		5,721,790.45	858,269
Permits, Testing, Inspections, and Project Management	6.0%		6,580,059.01	394,804
SOFT COST TOTAL				**2,526,640**
				-
				6,974,863

	Quantity	*Unit*	*Rate*	*Total*
7b Shoreline: Ecological Edge				
Mobilize	1	ls	269,000.00	269,000
Traffic control	1	ls	50,000.00	50,000
Protect existing	1	ls	75,000.00	75,000
Erosion control including silt curtain & dewatering	1	ls	350,000.00	350,000
Bulkhead removal, timber	500	lf	420.00	210,000
Retaining wall	300	lf	3,000.00	900,000
Earthwork/Site clearance	725	cy	60.00	43,500
Ecofill	1,800	cy	85.00	153,000
Biomatrix floating wetlands	4,000	sf	100.00	400,000
Shoreline wetland plants	6,000	sf	25.00	150,000
Upland landscape	13,300	sf	25.00	332,500
Storm	EXCLUDED			
Storm Water quality/Filtration	EXCLUDED			
Utility relocates	1	ls	25,000.00	25,000
Site remediation	5.0%		2,958,000.00	147,900
Work restrictions	5.0%		3,105,900.00	155,295
Indirects on construction (GCs, fee, etc)	6,000	sf	97.84	587,015
CONSTRUCTION TOTAL				**3,848,210**
Public Art Budget	1.5%		3,848,210.10	57,723
Sales Tax (RTA)	10.2%		3,905,933.25	398,405
Contingency	15.0%		4,304,338.44	645,651
A & E	15.0%		4,949,989.21	742,498
Permits, Testing, Inspections, and Project Management	6.0%		5,692,487.59	341,549
SOFT COST TOTAL				**2,185,827**
				-
				6,034,037

	Quantity	*Unit*	*Rate*	*Total*
7c Shoreline: Ice House				
Upgrade existing buildings	1	ea	500,000.00	500,000
New building	1	ea	500,000.00	500,000
Site remediation	1.0%		1,000,000.00	10,000
Work restrictions	5.0%		1,010,000.00	50,500
Indirects on construction (GCs, fee, etc)	1	ls	190,890.00	190,890
CONSTRUCTION TOTAL				**1,251,390**
Public Art Budget	1.5%		1,251,390.00	18,771
Sales Tax (RTA)	10.2%		1,270,160.85	129,556
Contingency	15.0%		1,399,717.26	209,958
A & E	15.0%		1,609,674.85	241,451
Permits, Testing, Inspections, and Project Management	6.0%		1,851,126.07	111,068
SOFT COST TOTAL				**710,804**
				-
				1,962,194

	Quantity	*Unit*	*Rate*	*Total*
7d Shoreline: P1 / Beach House Connector				
Mobilize	1	ls	177,000.00	177,000
Erosion control	8,600	sf	3.00	25,800
Protect existing	8,600	sf	1.50	12,900
Site clearance	8,600	sf	3.00	25,800
Mass ex	8,600	sf	28.31	243,500
Fine grade	8,600	sf	2.00	17,200
Agg base, ped paving	8,000	sf	3.50	28,000
Paving, ped	8,000	sf	25.00	200,000
Retaining wall	125	lf	3,000.00	375,000
Landscape	600	sf	40.00	24,000
Site amenities (fencing/rails/seating, etc)	8,000	sf	45.00	360,000
Beach House Shelter	864	sf	350.00	302,400
Storm	8,600	sf	3.50	30,100
Storm Water quality/Filtration	8,600	sf	10.00	86,000
Lighting	8,600	sf	3.50	30,100
Site remediation	1.0%		1,937,800.00	19,378
Work restrictions	5.0%		1,957,178.00	97,859
Indirects on construction (GCs, fee, etc)	1	ls	369,906.64	369,907
CONSTRUCTION TOTAL				**2,424,944**
Public Art Budget	1.5%		2,424,943.54	36,374
Sales Tax (RTA)	10.2%		2,461,317.70	251,054
Contingency	15.0%		2,712,372.10	406,856
A & E	15.0%		3,119,227.92	467,884
Permits, Testing, Inspections, and Project Management	6.0%		3,587,112.10	215,227
SOFT COST TOTAL				**1,377,395**
				-
				3,802,339

	Quantity	*Unit*	*Rate*	*Total*
8a Marina: Revamped Pier 1				
Mobilization	1	ls	100,000.00	100,000
Piles	8	ea	24,000.00	192,000
Floats	450	sf	400.00	180,000
Piles	26	ea	24,000.00	624,000
Decking/Grating	1,600	sf	185.00	296,000
Railings	EXCULDED			
Floats	250	sf	400.00	100,000
Remove some raised finger piers	1	ls	75,000.00	75,000
New floating dock for kayaks + gangways	1	ls	50,000.00	50,000
New fence location for securing large boats	1	ls	7,500.00	7,500
Site remediation	1.0%		1,624,500.00	16,245
Work restrictions	5.0%		1,640,745.00	82,037
Indirects on construction (GCs, fee, etc)	1	ls	310,100.81	310,101
CONSTRUCTION TOTAL				**2,032,883**
Public Art Budget	1.5%		2,032,883.06	30,493
Sales Tax (RTA)	10.2%		2,063,376.30	210,464
Contingency	15.0%		2,273,840.68	341,076
A & E	15.0%		2,614,916.79	392,238
Permits, Testing, Inspections, and Project Management	6.0%		3,007,154.30	180,429
SOFT COST TOTAL				**1,154,701**
				-
				3,187,584

	Quantity	*Unit*	*Rate*	*Total*
8b Marina: Shift Pier 2				
Mobilization	1	ls	100,000.00	100,000
Piles	8	ea	24,000.00	192,000
Floats	450	sf	400.00	180,000
Site remediation	1.0%		472,000.00	4,720
Work restrictions	5.0%		476,720.00	23,836
Indirects on construction (GCs, fee, etc)	1	ls	90,100.08	90,100
CONSTRUCTION TOTAL				**590,656**
Public Art Budget	1.5%		590,656.08	8,860
Sales Tax (RTA)	10.2%		599,515.92	61,151
Contingency	15.0%		660,666.55	99,100
A & E	15.0%		759,766.53	113,965
Permits, Testing, Inspections, and Project Management	6.0%		873,731.51	52,424
SOFT COST TOTAL				**335,499**
				-
				926,155
8c Marina: New Pier 2 or 3				
Mobilization	1	ls	100,000.00	100,000
Piles	15	ea	24,000.00	360,000
Floats	3,608	sf	400.00	1,443,200
Site remediation	1.0%		1,903,200.00	19,032
Work restrictions	5.0%		1,922,232.00	96,112
Indirects on construction (GCs, fee, etc)	1	ls	363,301.85	363,302
CONSTRUCTION TOTAL				**2,381,645**
Public Art Budget	1.5%		2,381,645.45	35,725
Sales Tax (RTA)	10.2%		2,417,370.13	246,572
Contingency	15.0%		2,663,941.88	399,591
A & E	15.0%		3,063,533.17	459,530
Permits, Testing, Inspections, and Project Management	6.0%		3,523,063.14	211,384
SOFT COST TOTAL				**1,352,801**
				-
				3,734,447

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TECHNICAL MEMORANDUM

Date:	October 9, 2024
To:	Stephanie Woirol, Berger Partnership
Copy to:	Andy Mitton, Guy Michaelsen (Berger Partnership)
From:	Erynne van Zee; Colleen Mitchell, P.E.; Herrera Environmental Consultants, Inc.
Subject:	Meydenbauer Bay Park Phase 2: Civil Engineering Considerations and Next Steps

Considerations and Next Steps for Civil Site Design

The following information summarizes important considerations for next steps as the Meydenbauer Bay Park Phase 2 (MBP2) project advances from Schematic Design. This memo summarizes civil site design considerations for 100th Avenue Southeast and the "Kite Site" (9959 Lake Washington Boulevard Northeast); emergency access through the park; and utility infrastructure design and permitting considerations for stormwater, water, and wastewater.

Design Considerations for 100th Avenue Southeast

Throughout the MBP2 Schematic Design process, the team explored a variety of high-level design strategies for 100th Avenue Southeast and Bellevue Place to address traffic flow, emergency vehicle access, existing tight turning radii constraints, and pedestrian safety considerations in the context of the proposed "Kite Site" architectural design.

While on a site visit in July 2023, the design team witnessed an 18-wheeler truck become stuck on a tight corner and steep grade change at the corner of Bellevue Place and Meydenbauer Way Southeast (turning from a southbound direction to an eastbound direction). Witnessing this issue prompted the design team throughout Schematic Design to consider what traffic will use 100th Avenue Southeast after the Kite Site is developed.

The following are grading and design considerations for 100th Avenue Southeast and Bellevue Place that may help improve pedestrian safety, vehicle circulation, and neighborhood access. These considerations have only been vetted at a high-level. See "Next Steps for 100th Avenue Southeast" for recommendations to evaluate feasibility in subsequent design stages.

Kite Site Parking Lot Circulation

The first driveway for the parking lot is proposed to be approximately 100-feet south of the existing traffic signal at Main Street and 100th Avenue Southeast. The second driveway is proposed to be approximately 275-feet south of the traffic signal. Given the proximity of the first driveway to the intersection and the steep grades between 10 percent to 15 percent along 100th Avenue Southeast, the design team

recommends considering one-way, clockwise circulation of the parking lot: vehicles would enter the parking lot at the second driveway and exit with a right or left turn at the first driveway. One-way, clockwise circulation would provide drivers time to assess traffic and pedestrian conditions after entering 100th Avenue Southeast from the signaled intersection. This circulation configuration also enhances pedestrian sight lines described in the following section.

Kite Site Parking Lot Sight Lines

The proposed design of a pedestrian-centric street along 100th Avenue Southeast and Bellevue Place will continue to evolve as the design of the Kite Site progresses. To schematically evaluate sight lines from turning out of the parking lot, Herrera assumed that 100th Avenue Southeast will be limited to 15 – 20 mph. The steep grade along 100th Avenue Southeast creates more complex sight line conditions for drivers turning right or left to see pedestrians and approaching vehicles. AASHTO "Sight Distance on Grades" and "Intersection Sight Distance" tables were used to estimate a desired sight distance of approximately 100-feet in either direction of a car entering or exiting the parking lot given the steep grade of 100th Avenue Southeast, which increases stopping distance for vehicles traveling downhill, and the meandering nature of the road.

As the design progresses in subsequent stages, site design elements under architecture and landscape architecture scope are recommended to be considered in design discussions around sight lines. For example, staircases are proposed to connect pedestrians to the parking lot and upper floors of the Kite Site building but may be in conflict with drivers' clear sight lines as they exit the parking lot. The siting of the staircases, pedestrian circulation, and vehicle circulation should be evaluated holistically in the next design stages.

Grading Strategies for 100th Avenue Southeast and Bellevue Place

Schematic-level grading options for 100th Avenue Southeast and Bellevue Place were considered to better integrate the street with the redeveloped Kite Site and create a more pedestrian-centric experience. The design team explored the following grading logic to propose a schematic-level grading plan for 100th Avenue Southeast and Bellevue Place:

- Grading varies between 10 percent to 15 percent, based on the existing elevations of the Marina and Lake Washington Boulevard.
- Grading does not exceed 15 percent slope to maintain Fire and Emergency Access along 100th Avenue Southeast per Bellevue Fire Code, which permits slopes of up to 15 percent for sprinklered buildings. It is assumed that existing buildings accessed from this portion of the roadway are all sprinklered.
- Grade changes from steeper to gentler along 100th Avenue Southeast and Bellevue Place signal to drivers that a parking lot driveway and/or pedestrian crosswalk is ahead.

- Steeper slopes of 13 percent – 15 percent are between crosswalks. Shallower slopes of 2 percent – 10 percent coincide with pedestrian areas. Pedestrian crosswalks should strive to maintain a 2 percent cross slope for accessibility as much as feasible.
- Grade changes may be paired with changes in materials and artistic crosswalks to highlight pedestrian priority areas. The following photos are a few examples of material and artistic crosswalks that could be considered:

Pavers signal crosswalks, which could be considered where the grade of 100th Avenue shallows out to 2%. Image source: Jarret M, <https://www.vta.org/cdt/street-design-home-page/shared-street-woonerf>

Artistic crosswalks are more visible than standard crosswalks and can celebrate local culture and place. Image Source: Washington Post, <https://www.washingtonpost.com/lifestyle/2022/06/08/crosswalk-art-safety-bloomberg/>

Next Steps for 100th Avenue Southeast

In the next stages of the design process, the following steps are recommended to evaluate the feasibility of the grading and parking lot circulation considerations:

1. Evaluate grading strategies in Civil3D to determine whether the grading is appropriate for vehicles that will use 100th Avenue Southeast and Bellevue Place. In particular, the feasibility of larger delivery trucks will be critical to evaluate if that size of vehicle is anticipated to use 100th Avenue Southeast and Bellevue Place after the Kite Site opens. This evaluation step should consider both the horizonal and vertical curvature of 100th Avenue Southeast and Bellevue Place.

2. Evaluate traffic calming strategies holistically along 100th Avenue Southeast and Bellevue Place in conjunction with pedestrian-centered design strategies being considered along Lake Washington Boulevard Northeast.
3. Evaluate feasibility of grading into existing parking lots and loading zones associated with condominiums east of 100th Avenue Southeast and Bellevue Place.

Emergency Access through Meydenbauer Park

The MBP2 project will provide emergency access through the project site. This paved access road shall meet the requirements of Bellevue Municipal Code (BMC) section 23.11.503.2, requiring:

- Minimum width of 20-feet (reduced widths may be allowed if automatic sprinkler systems are installed)
- Minimum unobstructed vertical clearance of 13.5-feet
- Minimum turning radius of 28-feet (inside) and 48-feet (outside)
- Maximum grade of 12 percent (up to 15 percent if automatic sprinkler systems are installed)
- Hard surfacing capable of supporting HS-25 loading in all weather conditions
- Signage and pavement markings to prohibit parking, loading and other potential obstructions

In Schematic Design, emergency access through the project site was evaluated along 100th Avenue Southeast and Bellevue Place, and along the shoreline between 99th Avenue Southeast and Bellevue Place. The high-level review assessed that the schematic designs intend to meet Bellevue Municipal Code section 23.11.503.2. Emergency access into adjacent apartments and private property parcels that interface with the MBP2 project area, such as Meydenbauer Apartments, were also evaluated at a high level for feasibility and code compliance.

In the following stages of design, detailed emergency access and code compliance will require evaluation as design, grading, and circulation are refined. Additional coordination with Bellevue Fire Department and Fire Marshall will be necessary to receive approval and discuss emergency access at adjacent private parcels.

Utility Infrastructure Considerations

During the Schematic Design phase, the Herrera-Berger team met with City of Bellevue Utilities representatives to understand existing conditions of utility infrastructure at Meydenbauer Bay Park and proactively discuss capital improvements and collaboration that align with Phase 2 park designs. Appendix A includes water, sewer, and stormwater infrastructure maps exported in December 2023 from the Bellevue Map Viewer. The map exports are annotated to highlight elements in the networks most relevant to MBP2, which are discussed in the subsequent sections.

Design Considerations for Stormwater Infrastructure

The MBP2 project will be required to meet all nine Minimum Technical Requirements for New Development and Redevelopment per the City of Bellevue's Surface Water Engineering Standards,

January 2024 (Standards). The following annotated flow chart from Figure 1.5 of the Standards outlines the redevelopment thresholds that will trigger stormwater minimum requirements for redevelopment projects and are further described in Table 1.

SURFACE WATER ENGINEERING STANDARDS JANUARY 2024

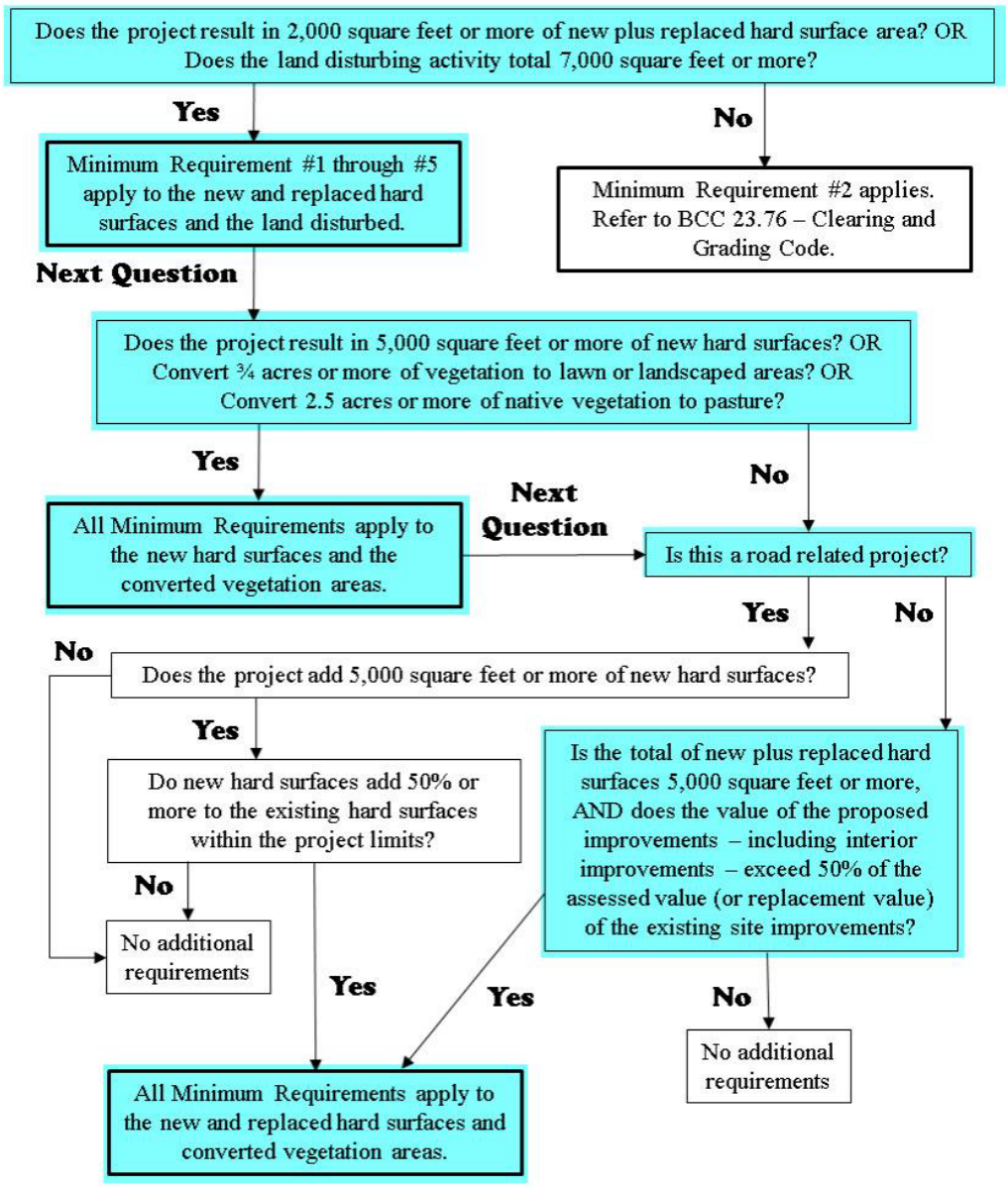

Figure 1.5 – Flow Chart for Determining Minimum Requirements for Redevelopment Projects

Source: Adapted from Figure 2.4.2 of Volume I of the DOE Manual.

D1-16

Table 1. Flow Chart for Determining Requirements for Redevelopment.

Requirement	MBP2 Answer	MBP2 Metric
Does the Project result in 2,000 SF or more of new plus replaced hard surface area? OR Does the land disturbing activity total 7,000 SF or more?	Yes	The project proposes to add or replace more than 5,000 square feet of hard surfaces
Result: Minimum Requirements #1 through #5 apply to the new and replaced hard surfaces and the land disturbed.		
Does the Project add 5,000 SF or more of new hard surfaces? OR Convert 0.75 acre or more of vegetation to lawn or landscaped areas? OR Convert 2.5 acres or more of native vegetation to pasture?	Yes	The project proposes to add or replace more than 5,000 square feet of hard surfaces
Is this a road related project?	No	
Is the total of new plus replaced hard surfaces 5,000 SF or more? AND Does the value of the proposed improvements, including interior improvements, exceed 50% of the assessed value (or replacement value) of the existing site improvements?	Yes	It is assumed that the value of the proposed improvements exceed 50% of the assessed value of the existing project site.
Result: All Minimum Requirements apply to the new and replaced hard surfaces and converted vegetation areas		

The MBP2 project will be required to meet all minimum requirements as described in the Standards. Table 2 outlines each minimum requirement, associated actions for the project to take, and design opportunities to consider.

Table 2. Minimum Requirements and Design Opportunities.

Minimum Requirement	Actions	Design Opportunities
#1: Preparation of Stormwater Site Plans	Prepare a Stormwater Site Plan as described in *Section D1-04.2(a)* of the Standards.	
#2: Construction Stormwater Pollution Prevention Plan (SWPPP)	Prepare SWPPP narrative and drawings to describe BMPs used to minimize sediment and erosion during construction, as described in *Section D1-04.2(b)* of the Standards	
#3: Source Control of Pollution	Select, design, and maintain source control BMPs as described in *Section D1-04.2(c)* of the Standards	
#4: Preservation of Natural Drainage Systems and Outfalls	Preserve and maintain natural drainage to extent possible on project site. Discharge to the natural location to extent possible.	Integration of GSI between upland and shoreline areas of MBP2 project site to preserve drainage systems and improve energy dissipation at outfalls through GSI and ecological marine infrastructure.

Table 2 (continued). Minimum Requirements and Design Opportunities.

Minimum Requirement	Actions	Design Opportunities
#5: On-Site Stormwater Management	As a Flow Control exempt project per *Section D1-04.2(g),* the following BMPs are required as described in *Section D1-04.2(e)* of the Standards: post-construction soil quality and depth, downspout full infiltration or dispersion systems, and concentrated or sheet flow dispersion. Exempt projects are not required to achieve the LID performance standards or List #2 BMPs described in *Section D1-04.2(e)*	As a qualifying flow control exempt project, LID performance standards, bioretention, rain gardens, permeable pavement nor full dispersion are required. However, GSI strategies, such as bioretention, integrated throughout the site design offer many opportunities for creative, beautiful, and functional stormwater management that go beyond code-minimums. Integrated GSI strategies for on-site stormwater management also provide co-benefits such as reduced urban heat island effects, urban habitat, runoff treatment, and public green space that are of value to the project.
#6: Runoff Treatment	Evaluate the Runoff Treatment thresholds described in *Section D1-04.2(f)* of the Standards to determine whether oil control, phosphorous treatment, and/or metals treatment is required and select Runoff Treatment BMPs. Additionally evaluate the thresholds to determine stormwater treatment design criteria, such as sizing and flow rate.	GSI strategies integrated throughout the site design that consider site and watershed contexts offer many opportunities for creative, beautiful, and functional runoff treatment. While not required, the project team strives to provide water quality treatment for all new and replaced hard surfaces within the project area, not just pollution-generating.
#7: Flow Control	Lake Washington is a Flow Control Exempt Receiving Water per section D1-04.2(g) of the Standards, subject to the design restrictions described in section D1-04.2(g)	Flow control BMPs are not required; however, there are abundant opportunities to integrate GSI to meet other Minimum Requirements.
#8: Wetlands Protection	MBP2 design does not discharge runoff to a wetland as described in *Section D1-04.2(h)* of the Standards.	N/A, there are no wetlands to protect.
#9: Operation and Maintenance	As described in *Section D1-04.2(i)* of the Standards, *create* an operations and maintenance manual for BMPs used in the MBP2 project to satisfy Minimum Requirements. Identify maintenance requirements consistent with the Standards, party/parties responsible, and funding sources.	Opportunities to discuss and collaborate on shared maintenance of GSI between City of Bellevue Parks and Utilities.

Integrated Green Stormwater Infrastructure Opportunities

Although the Standards determine which types of stormwater treatment are required in the project design to meet city and state regulations, the design of the MBP2 project site is an opportunity to determine how stormwater is expressed on the site and to provide additional voluntary stormwater treatment elements. The MBP2 project values water as a fundamental driver in the site design, which creates opportunities to integrate green stormwater infrastructure (GSI) throughout to meet the Standards and celebrate water across the park.

The MBP2 project will create a restored shoreline habitat between the Phase 1 project area and the eastern extent of the Phase 2 project area. With the new shoreline habitat, water quality treatment of

stormwater in the upland project area is a critical priority so that clean, treated stormwater discharges into the shoreline restoration area. Appendix A, "Meydenbauer Bay Park Project Area Stormwater" map shows existing stormwater infrastructure at the site. The separated stormwater infrastructure along 100th Avenue Southeast and Bellevue Place provides an opportunity to daylight, redirect, and treat offsite stormwater through integrated GSI. The following are design considerations and opportunities to further explore in the next stages of the MBP2 Project:

- Integrate bioretention in the right of way (ROW) along 100th Avenue Southeast in conjunction with the redesign and realignment of 100th Avenue Southeast to be more pedestrian-centric. Bioretention in the ROW could daylight the storm sewer on 100th Avenue Southeast and provide water quality treatment prior to stormwater reaching the shoreline.
- Integrate bioretention into the "Kite Site" to treat runoff from roofs and hardscape areas. The storm sewer at the intersection of 100th Avenue Southeast and Main Street could be diverted through the Kite Site to treat stormwater prior to discharge. The design of bioretention could frame and create pedestrian-centric spaces and walkways from the Terrace to the shoreline.
- Landscaped and bioretention areas could consider amended soils to increase the sequestration of carbon and improve stormwater treatment mechanisms.

Other opportunities for integrating water systems on site through GSI include:

- Graywater treatment and reuse for onsite irrigation and/or toilet flushing, which may be particularly advantageous on the MBP2 site because of the steep grades that are conducive to passive water flow.
- Green roofs to capture stormwater runoff and mitigate urban heat island effects.
- Enhanced filter strips along the shoreline to treat stormwater that sheet flows across hardscape surfaces, such as the emergency access road along the shoreline.
- Runnels to direct runoff along ramps to areas for treatment. Phase 1 used artistic runnels to highlight the route of water through the park.

Additionally, integrating GSI throughout the MBP2 site creates opportunities for water management and treatment beyond the minimum code and permit requirements. One beyond-code opportunity could include using bioretention on the MBP2 site to treat a larger portion of the approximately 25-acre stormwater basin upstream. Beyond-code treatment additionally creates incentives for inter-departmental collaboration at the City of Bellevue and opportunities to apply for grant funding to achieve beyond-code goals.

Design Considerations for Sewer Infrastructure

The Lake Washington Sewer Line, "Lake Line", is an old 10-inch diameter asbestos concrete sanitary sewer line that parallels the Lake Washington shoreline. Appendix A, "Meydenbauer Bay Project Area Water & Sewer" map shows existing sewer infrastructure conditions. During Meydenbauer Bay Park Phase 1, a portion of the Lake Line was abandoned-in-place and replaced with a new 12-inch diameter PVC sewer

pipe. The new PVC sewer pipe conveys sewage southeast from the Logen Lift Station to the Grange Pump Station located near the intersection of Southeast Bellevue Place and Meydenbauer Way Southeast. The Grange Pump Station pumps sewage east and north to Main Street within the Southeast Bellevue Place and 100th Avenue Southeast rights-of-way. As noted in Appendix A, the Pump Station does have an emergency overflow outlet. From interviews with City staff, this emergency overflow is rarely engaged and the City staff interviewed had never seen the Pump Station overflow.

Proactive discussions with the City of Bellevue Utilities identified the following important coordination needs between Parks and Utilities regarding the Grange Pump Station, 100th Avenue Southeast force main, and new PVC Lake Line.

Grange Pump Station Access

Bellevue Utilities requested that access to the Grange Pump Station is maintained in MBP2 designs. Access is required to maintain the pump station, generator vault, and wet well.

Bellevue Utilities staff described the following access needs:

- Thirty-feet long vans can drive up and park next to the pump station area
- Small trucks, such as a Ford 550 Chassis, can access the generator for re-fueling
- Vactor trucks can park within 25 feet of the pump station wet well for occasional maintenance

Grange Pump Station Improvements

The City noted that the Grange Pump Station will require improvements in the near-term and is projecting costs in their Capital Improvement Projects (CIP) budget. One of these improvements includes replacing the Grange Pump Station force main that runs under Southeast Bellevue Place and 100th Avenue Southeast. The site improvements associated with MBP2 along Southeast Bellevue Place and 100th Avenue Southeast may be a well-aligned opportunity to complete pump station and force main upgrades. The MBP2 design team recommends the City of Bellevue Parks and Utilities departments continue to communicate and coordinate about project schedules so any subgrade infrastructure improvements may be completed in sync with site development improvements on the Kite Site and 100th Avenue Southeast.

Design Considerations for Water Infrastructure

Bellevue Utilities is interested in replacing a 6-inch diameter asbestos cement water line along Lake Washington Boulevard. Appendix A, "Meydenbauer Bay Project Area Water & Sewer" map shows existing water infrastructure conditions. The existing asbestos cement water line is along the southern edge of Lake Washington Boulevard and overlaps with areas in the MBP2 project area that are being considered for shared use path improvements. The MBP2 design team recommends the City of Bellevue Parks and Utilities departments continue to coordinate Lake Washington Boulevard improvements, as there may be opportunities for cost sharing and syncing infrastructure upgrade construction schedules.

Next Steps for Utility Infrastructure Collaboration

The MBP2 project will need to design with stormwater, water, and wastewater utility infrastructure in mind. The existing stormwater infrastructure provides opportunities to integrate GSI throughout the project area to celebrate water and treat stormwater runoff before the water outfalls to the shoreline. The existing wastewater utility infrastructure presents design constraints to maintain access to critical sanitary pump stations and force mains. The design team recommends close coordination between Bellevue Parks and Utilities so that any utility infrastructure upgrades may be planned and constructed in sync with the MBP2 project schedule. Additionally, close coordination between departments creates opportunities to share costs and maintenance, as well as apply for inter-departmental grants to achieve beyond-code goals.

Appendix A

Existing Utility Infrastructure Conditions Maps

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TECHNICAL MEMORANDUM

Date:	January 16, 2025
To:	Stephanie Woirol, Berger Partnership (Berger)
Copy to:	Andy Mitton, Guy Michaelsen, Evan Blondell, Berger
From:	Christina Merten, PE, PWS; Jeff Parsons, PE, PhD; Eliza Spear, PWS, Herrera Environmental Consultants, Inc.
Subject:	Environmental Considerations for Meydenbauer Bay Park Phase 2 (MBP2) Schematic Design

The following information summarizes important considerations, constraints, and realities that will impact the Schematic Design phase of Meydenbauer Bay Park Phase 2 (MBP2) related to work within the shoreline jurisdiction. As of the writing of this memorandum, the City of Bellevue (City) is pursuing a scenario in which Piers 1 and 3 will be retained (although upgrades and structure alterations may occur). This scenario may also include bulkhead removal, restoration of the nearshore and shoreline area, and construction of an elevated baywalk.

Potential Project Activities

Overwater Structures

The Whaling Building is specifically identified in the Master Plan as being retained. A new structure is proposed in place of the Ice House. The City regulates work in the shoreline district, including changes to existing structures, construction of new structures, and Piers 1 and 3, via the Shoreline Substantial Development Code and the Land Use Code (LUC) 20.25E.080.E, which describes the requirements for overwater structures.

Impacts to shoreline ecological functions will require a mitigation plan and must be avoided and minimized to the greatest extent possible, as required by the Bellevue Municipal Code (BMC) 20.25E.060. Moorage facilities shall provide a minimum of 50-foot setback from property line projections if access is directly from public water. Dock and piers must be accessed from upland support areas with ramp or gangway and walkway system, first set of finger piers/ells located nine feet or greater from the shoreline. Walkways no more than eight feet wide, ells no more than four feet wide, ramps and gangways no more than six feet wide. Docks, ramps, piers, and walkways must be grated or surfaced with light-penetrable materials, and structures should be designed to minimize overwater coverage and avoid shading of aquatic vegetation as much as possible (this is part of the avoidance and minimization requirements for shoreline ecological functions).

Retention of Piers 1 and 3 avoids additional impacts to the nearshore by using existing impact footprints rather than creating new overwater structures outside of the existing footprint. These piers are also

outside of the navigable water zone. The nearshore (less than 12 feet of depth from OHWM) is the area most used by spawning sockeye and migrating juvenile salmonids. Due to the ecological importance of this area, it is important that project designs minimize impacts to the greatest extent possible in the nearshore, meaning avoiding the placement of any new overwater structures in the nearshore.

Herrera assumes that a boat ramp will not be part of the design alternatives put forward. Boat ramps would trigger different permit reviews and pathways not reviewed for this memo.

Retaining Walls Within Shoreline Jurisdiction

A new wall is proposed to protect the sewer line installed as part of Phase 1 of the project and as part of the connecting pathway between Phases 1 and 2. A retaining wall is also proposed as part of the shoreline restoration work discussed below. This work would occur within the shoreline district and would also be regulated by the Shoreline Substantial Development Code and LUC 20.25E.080.F, which regulates shoreline stabilization measures designed to protect existing public facilities from shoreline erosion. Shoreline stabilization measures are allowed at or above ordinary high water mark if they comply with the cited LUC.

The construction of new shoreline stabilization measures, such as the proposed wall, are allowed only where avoidance measures and soft shoreline stabilization measures are not technically feasible (LUC 20.25E.080.F). Additional requirements are further described in the LUC.

Nearshore and Shoreline Restoration

Shoreline restoration is intended to provide on-site mitigation for in-water impacts from construction of the marina. Shoreline restoration will include removal of the existing bulkhead, removal of impervious surface, regrading of a new shoreline behind the existing bulkhead with placement of a new, smaller bulkhead structure upland and landward of the ordinary water mark. The design is focused on habitat restoration for Chinook salmon (*Oncorhynchus tshawytscha*). Chinook need shallow grades (ideally 10:1 slope) with aggregate to support smolt in the spring. Based on seasonal water level changes, Herrera estimates that a vertical depth of at least five feet in the nearshore area is necessary in order to provide this environment. Removal of structures and avoidance of placing new structures within this environment will directly benefit salmon species. Salmon also need vegetation shading which cools the water and provides nutrient input. To meet this need, the design will increase native riparian vegetation in those areas directly adjacent to the water line.

There is also opportunity to restore habitat for freshwater mussels within the nearshore of the park. Freshwater mussels in the Puget Sound are on the decline and are important for nearshore ecosystem health, in particular water quality and food chain health. Freshwater mussels thrive in substrates with gravel and fine sediment.

Water levels in Lake Washington are controlled by the US Army Corps of Engineers. Ordinary High Water Mark for the marina is at 18.75 feet (NAVD 88). Winter low water is at 16.75 feet (NAVD 88). This seasonal change will leave approximately 30 horizontal feet of shoreline exposed during the winter. The exposed

shoreline will require planting with native vegetation that can accommodate a two-foot water level change. It is likely that the planting palette within this portion of the nearshore will be dominated by willow species. Species will be selected to not compete with views from the elevated baywalk.

Tree/Vegetation Removal

Per City code significant trees are identified as healthy evergreen or deciduous tree, eight inches in diameter or greater, measured four feet above existing grade. Any removal of native vegetation within the shoreline environments must be replaced at a 1:1. Significant trees are to be replaced at a ratio of 3:1. Significant tree removal is not anticipated to occur as part of project activities at this time. If noxious weeds are removed; they are to be replaced 1:1 area with native plants.

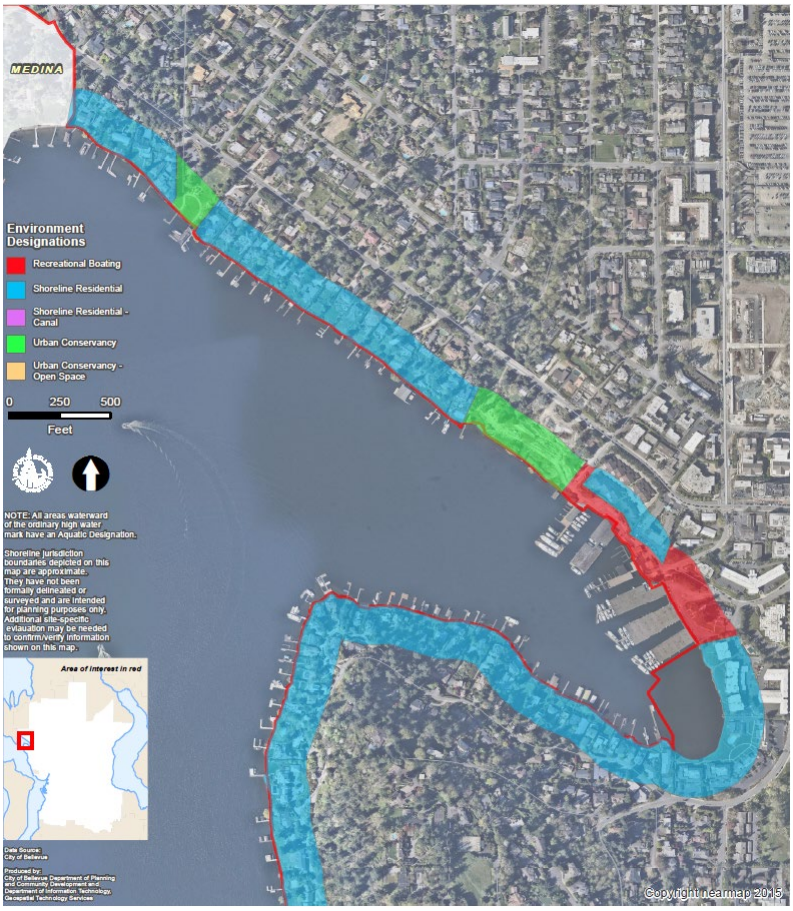
Environmental Permitting Considerations

Lake Washington provides vital habitat for salmonids. Therefore, projects affecting Lake Washington are held to a regulatory standard which requires projects to result in no net loss of ecosystem functions. This standard applies across the federal, state, and local permitting levels. The project design will need to meet this standard by avoiding impacts, particularly in the nearshore, as discussed earlier in this document. When impacts are unavoidable, compensatory mitigation efforts will need to be significant due to the ecological importance of this area. Phase 1 of the Meydenbauer project provides an example of what mitigation may look like. Compensatory mitigation activities may include the removal of bulkheads, Pier 2, planting of native plants, and potentially off-site mitigation through negotiations with regulatory agencies.

There are also geologic hazard areas (BMC 20.25H.120.A) present within the project area. Activities occurring in the vicinity of geologic hazard areas must comply with the City's critical areas code and will require review by a qualified professional, such as a geotechnical engineer. Geologic hazard review is not included within this memorandum.

Shoreline Master Plan

Meydenbauer Bay Park Phase 2 is within the Recreational Boating Environment and Shoreline Residential Environment for shoreline jurisdiction with the City of Bellevue per the adopted 2018 Shoreline Master Program.



Meydenbauer Bay Park has an adopted Master Plan that was approved by City Council December 13, 2010. When reviewing proposed work within the shoreline environments it will be important to match what is described in this Master Plan to minimize permitting and environmental review processes.

LUC 20.25E.050.A has setbacks and dimensional requirements for the Shoreline Overlay District:

- Shoreline structure setback = 25 feet from OHWM for Recreational Boating and 50 feet from OHWM for Shoreline Residential. For Shoreline Residential shoreline structure setback accounts for encroachments by existing structures and allows for reduction to 25 feet if impacts to existing shoreline vegetation are mitigated. A one-time lateral expansion of up to 200 square feet (sf) is allowed for existing structures within 25 feet of the OHWM. Further encroachments are only allowed through approval of a shoreline variance.
- Maximum shoreline lot coverage by structures for Recreational Boating or Shoreline Residential shall not exceed the maximum lot coverage established for the underlying land use district (LUC Chart 20.20.010)
- Maximum shoreline building height is 35 feet for both Recreational Boating and Shoreline Residential

- Maximum shoreline impervious surface = 65 percent for Recreational Boating and 50 percent for Shoreline Residential. Shoreline Residential must also not exceed the maximum alternative impervious surface established under the underlying residential land use district (LUC Chart 20.20.010)

Permit Matrix

During the conceptual design phase of this project, Herrera discussed permitting implications for federal, state, and local environmental permits with Berger. Herrera also reviewed permitting documentation from previous park construction phases to understand permitting constraints that may be applied to this phase of park improvements. Anticipated environmental permits are summarized in the table in this section. Herrera has not conducted any direct coordination with permitting agencies to date. This coordination will be required as the design for the project is progressed.

As the project alternatives move forward, Herrera can help assess whether additional permits would be required based on activities proposed within shoreline jurisdiction.

Permit	Regulatory Agency	Permit Applications, Documentation, and Requirements	Application Recipients
Federal			
Clean Water Act (CWA) Section 404 Nationwide Permit (NWP)	US Army Corps of Engineers (USACE)	Critical Areas Report and Mitigation Plan, ESA No Effect Letter, and JARPA	USACE, WDFW, Engaged Tribal Parties
ESA Consultation	USACE, NMFS, USFWS	Biological Evaluation, Critical Areas Delineation Report, Mitigation Plan	USACE, NMFS, USFWS
State			
Hydraulic Project Approvals	Washington State Department of Fish and Wildlife (WDFW)	Critical Areas Report and Mitigation Plan, JARPA, permit application form(s), Basis of Design, and site plans	WDFW, Engaged Tribal Parties
CWA Section 401 Water Quality Certification	Washington Department of Ecology (Ecology)	Critical Areas Report and Mitigation Plan, and JARPA	Ecology, WDFW, Engaged Tribal Parties
Local			
SEPA Environmental Review	City of Bellevue	SEPA Environmental Checklist, site plans, public comment period	City of Bellevue, Public
Critical Areas Land Use Permit	City of Bellevue	Critical Areas Report, Geotechnical Report, SEPA Checklist	City of Bellevue
Shoreline Substantial Development Permit	City of Bellevue	Boundary and Topographic Survey, Project Description, Site Plan	City of Bellevue
Clearing and Grading Permit	City of Bellevue	Boundary and Topographic Survey, Construction Stormwater Pollution Prevention Plan, Final Landscape Plan, Geotechnical Report, SEPA Environmental Checklist, Site Plan, Critical Areas Report, Mitigation Plan, Tree Hazard Declaration Form	City of Bellevue

For the USACE CWA Section 404, in order to fall under a NWP review, the following conditions would need to be met for the reconfiguration or expansion of Piers 1 and 3:

- NWP 28 – Reconfiguration of existing docking facilities within an authorized marina area is allowed. No dredging, additional slips, dock spaces or expansion of any kind. The design team will need to confirm that the removal of Pier 2 and reconfiguration/expansion of Piers 1 and 3 is an overall reduction of slips and dock spaces within the marina.

The NWP program currently in effect will go through federal and state review and renewal process in 2026 and changes to the conditions listed above may occur. The conditions in place at the time of permit application are what the project would be held to. If NWP conditions cannot be met, an individual CWA 404 permit will be required. Individual permits require longer review periods.

For the Ecology CWA Section 401 Water Quality Certification, review by Ecology for compliance with state water quality standards is required for projects such as this one which include work in Lake Washington, as the lake is listed on Ecology's 303(d) list of impaired waters.

TECHNICAL MEMORANDUM

DATE: August 20, 2024

TO: Scott VanderHyden
City of Bellevue

FROM: Chandler Waldal / Michael Read
TENW

SUBJECT: Meydenbauer Bay Park – Historical Parking Observations (City of Bellevue)
TENW Project No. 2023-181

This technical memorandum provides an expanded review of historical parking observations at the *Meydenbauer Bay Park: Phase 1* facility in downtown Bellevue. The study serves as a supplement to the previous *Meydenbauer Bay Park: Phase 1 Parking Analysis 2021* prepared by Perteet in November 2021. Since this original effort, the City of Bellevue has contracted continued parking observations at designated off-street and on-street parking facilities that serve the *Meydenbauer Bay Park: Phase 1* project and larger marina area. The *Meydenbauer Bay Park – Historical Parking Observations (City of Bellevue)* includes a summary of additional peak summer data collection that occurred during 2022 and 2023 for Meydenbauer Park as part of the City's five-year (2019-2023) parking occupancy monitoring program.

Background

Vehicular parking access to the existing Meydenbauer Bay Park Phase 1 area and existing marina is supported by four (4) parking facilities: Marina, 99th Avenue NE (99th lot), Grand Terrace, and Canyon. In total, vehicles can park in 118 stalls within the existing parking facilities. Parking within the park includes regular, compact, ADA, and electric-vehicle (EV) stalls. The locations of the four (4) parking lots and the various parking stall types are shown in Attachment A.

Table 1 shows parking stall type allocation throughout the park. TENW reviewed and verified the parking stall type and total capacity information during a field visit in July 2024. It should be noted that based on the recent site visit, one (1) additional stall was counted in the Canyon parking lot when compared to what was recorded in the prior 2021 study.

Table 1: Parking Stall Types

Parking Lot	Regular	Compact	ADA	Electric	Total
Marina	51	11	5	2	69
99th	5	2	0	0	7[1]
Grand Terrace	14[2]	0	0	0	14
Canyon	26[3]	0	2	0	28
Total	**96**	**13**	**7**	**2**	**118**

1. Does not include the loading zone
2. Includes two on-street parking spaces along Lake Washington Boulevard NE
3. In comparison to the 2021 Perteet study, one additional regular stall was counted in the Canyon Parking lot based on 2024 observations.

The *Meydenbauer Bay Park – Historical Parking Observations (City of Bellevue)* includes a summary of 2022 and 2023 parking demand data for Meydenbauer Park as part of the City's five-year (2019-2023) parking occupancy monitoring program. The prior 2021 analysis included a summary of 2019, 2020, and 2021 parking utilization data for Meydenbauer Bay Park and is included in Attachment B.

Under a separate contract, the City hired Diamond Parking to collect parking demand data in 2022 and 2023. A description of this additional data collection effort and a summary of results are included below.

Data Collection

Parking utilization was collected by Diamond Parking in 2022 and 2023 from late Spring through the Labor Day holiday. Additional information for each of the study years is provided below. It should be noted that all the data provided did not distinguish the parking stall types. Additionally, the data includes major event weekends at Meydenbauer Bay Park including the Fourth of July, SeaFair, and Labor Day Weekend.

2022 Data

- Begin Date: Saturday May 14th, 2022
- End Date: Sunday September 6th, 2022
- Start Time: varied between 7am, 8am, and 9am
- End Time: varied between 3pm, 4pm, and 5pm
- Data collected every day from begin to end date

2023 Data

- Begin Date: Monday May 1st, 2023
- End Date: Monday September 4th, 2023
- Start Time: varied between 8am and 9am
- End Time: varied between 3pm, 4pm, and 5pm
- Data collected every day from begin to end date

TENW utilized parking demand methodology consistent with the *Meydenbauer Bay Park: Phase 1 Parking Analysis 2021* prepared by Perteet to summarize the 2022 and 2023 parking demand data provided by Diamond Parking.

TENW calculated and summarized 25th percentile, average, 85th percentile, and peak (maximum) parking demand statistics for each parking lot. These four values illustrate low, medium, high, and peak demands, respectively. It should be noted that the 85th percentile rate is reported in these surveys as this utilization rate is considered to be the "effective parking capacity" of a parking facility by the transportation engineering profession. Utilization above the 85th percentile level begins to break down the efficiency and ease of parking maneuvers within the parking facility and can result in circuitous routing of vehicles, non-compliant parked vehicles, drivers dwelling within drive-aisles and designated fire/emergency vehicle areas, etc.

Summary of Results

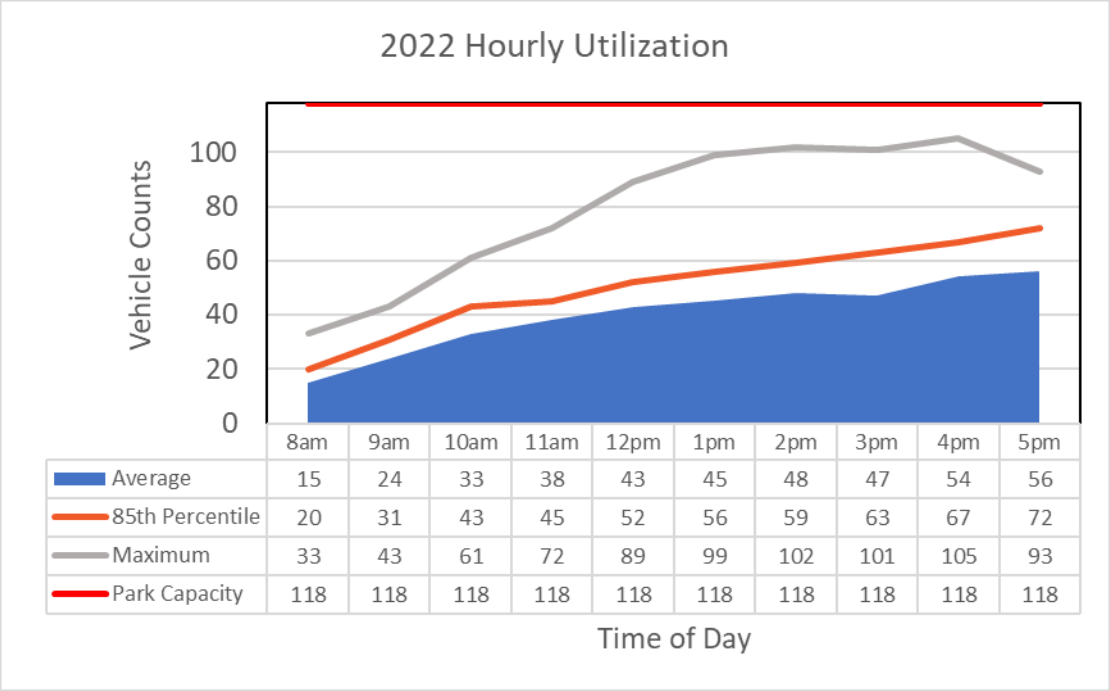
The annual 2022 and 2023 parking utilization results are summarized in Table 2 for each parking lot. In addition, hourly utilization for the entire park is shown in the graphs on the next page. The graphs show hourly trends averaged over each collection period, 85th percentile results, and maximum utilization of the entire parking available to the existing *Meydenbauer Bay Park* and Marina area.

Table 2: Annual Utilization

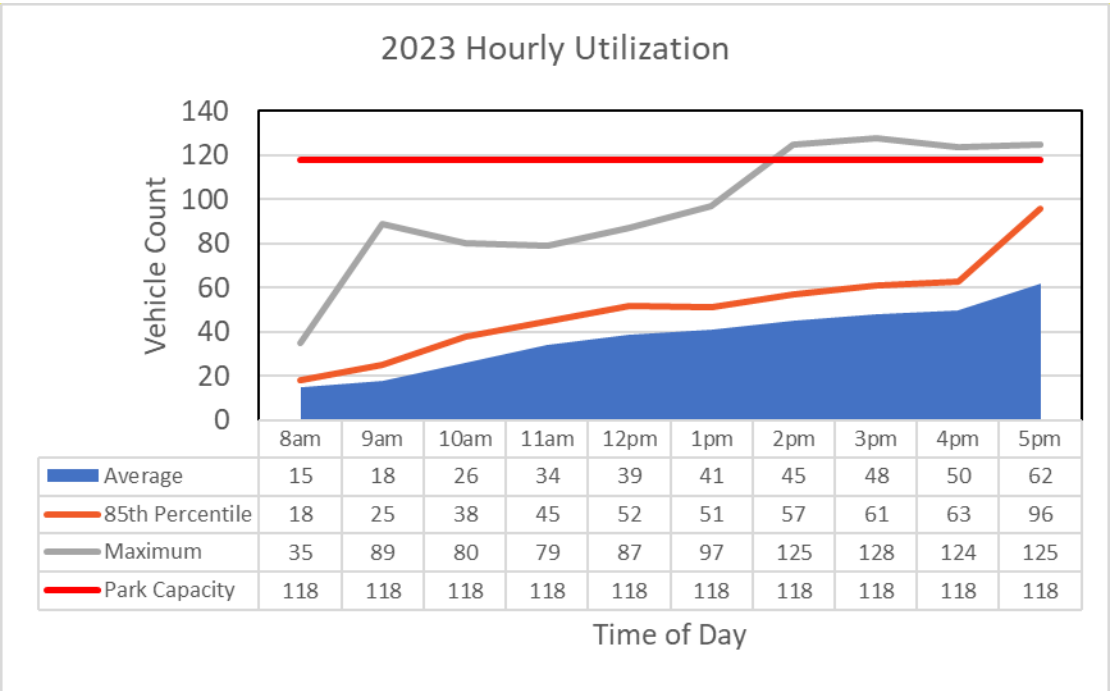
Metric	Marina	99th	Grand Terrace	Canyon	Entire Park
Capacity	69	7	14	28	118
2022					
25th Percentile	13	5	8	1	28
Average	20	7	11	2	39
85th Percentile	32	7	13	5	55
Maximum	55	8	16	31	105
Hours above Capacity	0	11 (1.1%)	4 (0.4%)	4 (0.4%)	0
Days above Capacity	0	10 (8.6%)	4 (3.4%)	1 (0.9%)	0
2023					
25th Percentile	11	5	5	0	23
Average	18	7	8	2	36
85th Percentile	32	7	12	5	54
Maximum	81	54	14	52	128
Hours above Capacity	1 (0.1%)	3 (0.3%)	0	17 (1.7%)	6 (0.6%)
Days above Capacity	1 (0.8%)	3 (2.4%)	0	5 (3.9%)	2 (1.6%)

As shown in Table 2, on average less than 50 percent of the parking capacity was utilized from May to September in 2022 and 2023, consistent with the *Meydenbauer Bay Park: Phase 1 Parking Analysis 2021*. The 85th percentile observations indicate that there was a 63 stall surplus in 2022 and a 64 stall surplus in 2023 for all of the parking facilities serving the *Meydenbauer Bay Park*, with the Marina parking lot being the most underutilized.

It should be noted that since there is limited information regarding the data collection methodology, it was assumed that the data collector (Diamond Parking) counted all vehicles within each lot as well as potential adjacent curb spaces. Additionally, there are several outliers that suggest there may have been reporting errors in data entry (particularly in 2023 where the maximum parking observed in the 99th and Canyon facilities exceeded 50 vehicles with a capacity of only 33 stalls).



	8am	9am	10am	11am	12pm	1pm	2pm	3pm	4pm	5pm
Average	15	24	33	38	43	45	48	47	54	56
85th Percentile	20	31	43	45	52	56	59	63	67	72
Maximum	33	43	61	72	89	99	102	101	105	93
Park Capacity	118	118	118	118	118	118	118	118	118	118



	8am	9am	10am	11am	12pm	1pm	2pm	3pm	4pm	5pm
Average	15	18	26	34	39	41	45	48	50	62
85th Percentile	18	25	38	45	52	51	57	61	63	96
Maximum	35	89	80	79	87	97	125	128	124	125
Park Capacity	118	118	118	118	118	118	118	118	118	118

As shown in the graphs above, parking utilization is highest from 2:00 – 5:00 PM on both weekdays and weekends. The maximum observed parking demand throughout the 2022 and 2023 data collected periods was recorded from 3:00 – 4:00 PM at 128 vehicles (10 vehicles above capacity). This data was collected over SeaFair weekend in 2023 and reflects typical parking demand for a major special event.

Conclusion

On average, the parking capacity for the *Meydenbauer Bay Park* is less than 50 percent utilized based on the review of recorded parking observations. The days where the park has exceeded capacity are related to larger Seattle area special events (such as Fourth of July, SeaFair, and Labor Day weekend), which are considered a-typical and are experienced in many areas throughout the region closer to waterfront areas. In addition, the results of the 85th percentile data show that the parking facilities at the *Meydenbauer Bay Park: Phase* 1 is under capacity for all parking facilities. In specific, the Marina is the most underutilized parking facility servicing the existing *Meydenbauer Bay Park* area, resulting in excess supply.

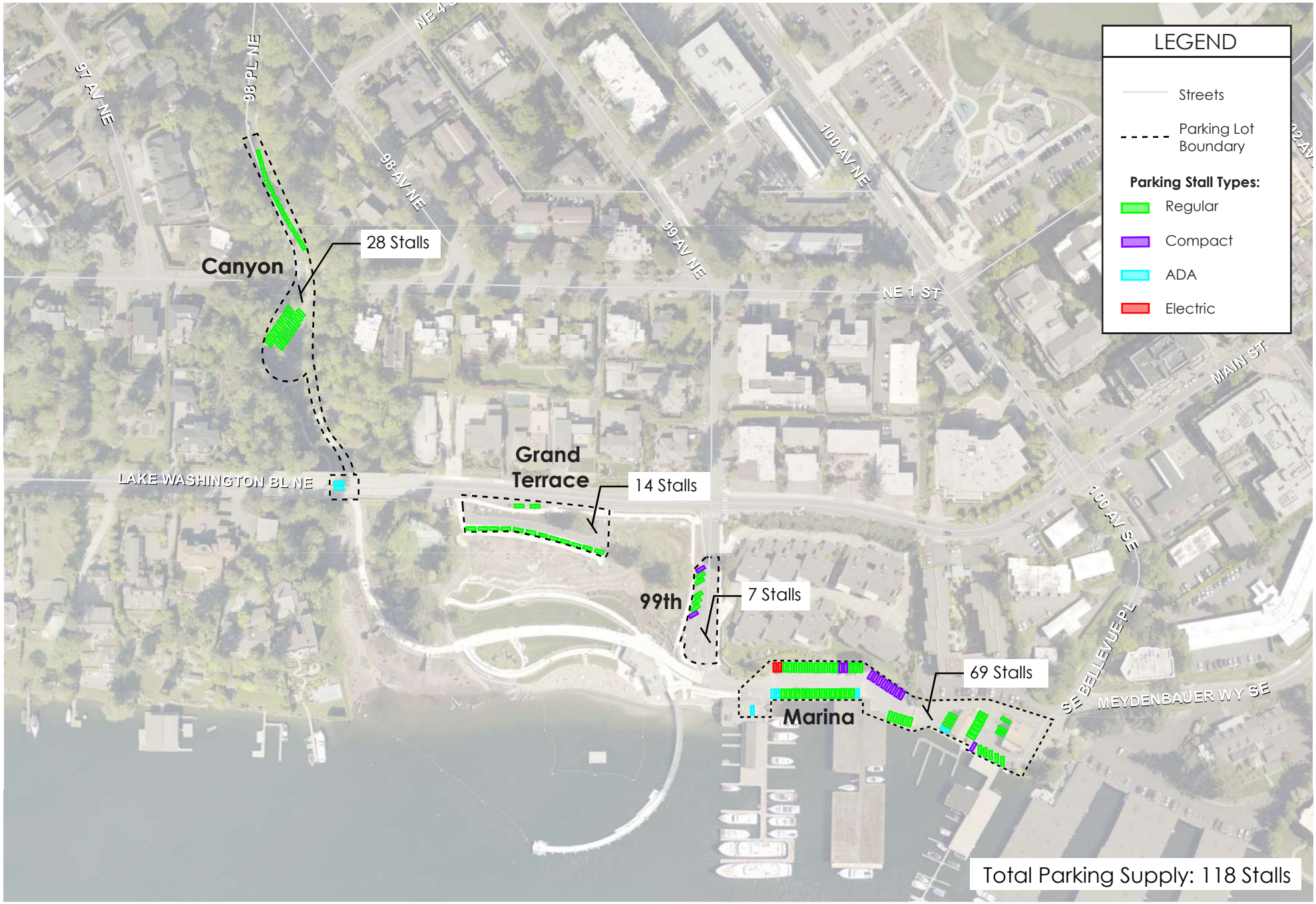
If you have any questions regarding the information presented in this supplemental traffic assessment, please contact me at chandler@tenw.com or (760) 994-7376.

cc: Stephanie Woirol, Berger Partnership
Andy Mitton, Berger Partnership
Michael Read, TENW

Attachments

ATTACHMENT A

Existing Parking Facilities



Attachment A: 2024 Meydenbauer Bay Park Existing Parking Facilities

ATTACHMENT B

Perteet Parking Analysis

(November 2021)

PERTEET

MEMORANDUM

2707 Colby Avenue, Suite 900, Everett, WA 98201 | P 425.252.7700

To: Scott VanderHyden, City of Bellevue

From: Brent Powell, PE
Rebecca O'Sullivan, EIT

Date: November 12, 2021

Re: Meydenbauer Bay Park: Phase 1 Parking Analysis 2021

INTRODUCTION

The City of Bellevue (City) hired Perteet to evaluate parking occupancy data for Meydenbauer Bay Park (Park) since the completion of Phase 1 in 2019. This evaluation is part of a five-year City parking occupancy monitoring program to satisfy a condition of construction approval from the Hearing Examiner for the project.

The Park has four parking lots: Marina, 99th Avenue NE ("99th" lot), Grand Terrace, and Canyon. In total, vehicles can park in 115 stalls within the existing parking facilities. Parking within the Park includes regular, compact, ADA, and electric-vehicle stalls. Figure 1 shows the locations of the four parking lots and documents the various parking stall types. Table 1 shows parking stall type allocation throughout the Park. Perteet gathered this information on parking stall type and total lot capacity during a field visit on September 22, 2021.

Table 1. Parking Stall Types

Parking Lot	Regular	Compact	ADA	Electric	Total
Marina	51	11	5	2	69
99th	5	2	0	0	7*
Grand Terrace	14**	0	0	0	14**
Canyon	25	0	2	0	27
Total	**95**	**13**	**7**	**2**	**117**

* Does not include the loading zone.
** Includes two on-street parking spaces along Lake Washington Boulevard NE.

Under a separate contract, the City collected parking data for a span of three years (2019, 2020, and 2021) during the summer months. In 2019 and 2020, park rangers collected this data. In 2021, the City hired Diamond Parking to collect this data.

The following pages detail the types of data collected, Perteet's evaluation process, and the analysis results on the first three years of Meydenbauer Park Phase 1 parking data.

PERTEET

0 100 200
Feet

Legend

Streets

Parking Lot Boundary

Parking stall types:

- Regular
- Compact
- ADA
- Electric

City of Bellevue
Meydenbauer Bay Park: Phase 1 Parking Analysis 2021

Figure 1. Existing Parking Facilities

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Source: City of Bellevue; King County Imagery

DATA REVIEW

The general range of data collection includes early Summer through the Labor Day holiday. All data provided to Perteet does not distinguish use of the parking by stall types. Additional information regarding collection for each of the study years is listed below.

2019 Data

- Begin date: Saturday May 25, 2019
- End date: Sunday September 8, 2019
- Data collected at least twice per day of the week
- Start time: varied between 10am and 3pm
- End time: varied between 2pm to 8pm

2020 Data

- Begin date: Friday June 19, 2020
- End date: Sunday September 6, 2020
- Data collected on Friday, Saturday, Sunday
- Start time: 10am (typically; July 17th includes 8am, 9am, and 10am data)
- End time: 8pm
- Additional notes and weather conditions provided

2021 Data

- Begin date: Tuesday June 1, 2021
- End date: September 6, 2021
- Data collected every day from begin to end date
- Start time: varied between 8am and 9am
- End time: varied between 3pm and 5pm

DATA ANALYSIS

Methodology

Perteet combined all 2019, 2020, and 2021 data into one tracking and analysis spreadsheet that included each hourly collection, date, and vehicle count per lot. Tables within the workbook compute the percentile and maximum occupancy calculations, which are formatted into charts and figures for this memorandum. As the City plans to monitor parking occupancy for two additional years (2022 and 2023) to satisfy the five-year analysis period, additional calculations are set up and have figures linked for the City to utilize in upcoming years.

Perteet calculated the following occupancy statistics for each parking lot per year and per hour: 25th percentile, average, 75th percentile, and maximum. These four values illustrate varying levels of demand: low, medium, high, and peak demand, respectively.

Results

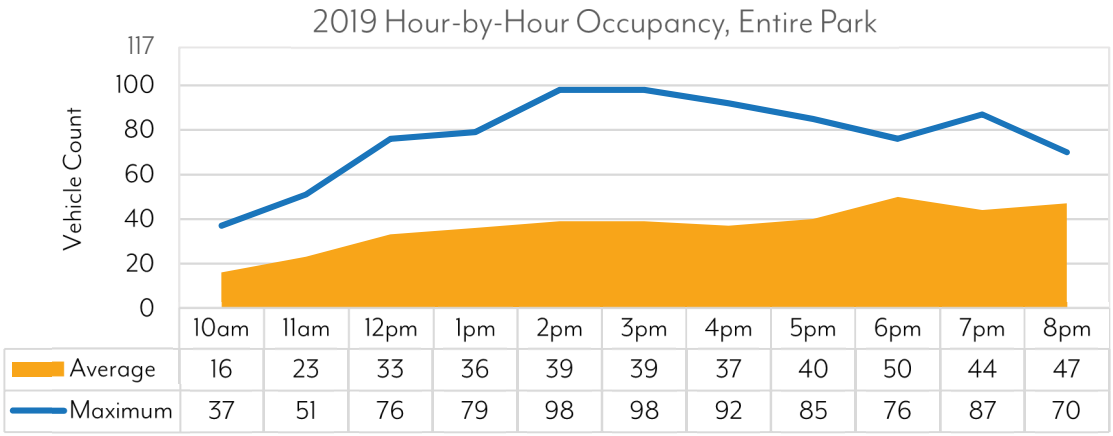
Table 2 lists the four analysis statistics for each lot and each year. It also notes the number of hourly and daily measurements, and the percentage of those hours/days out of all recordings, where a lot exceeded capacity.

Table 2. Year-by-Year Occupancy

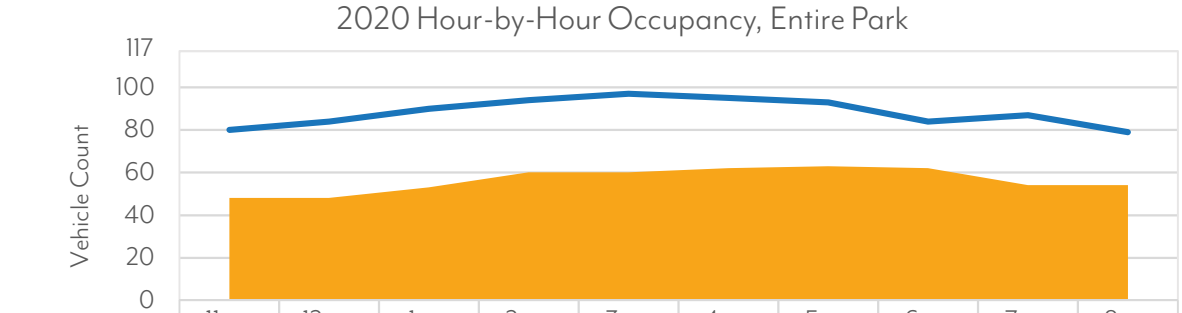
Metric	Marina	99th	Grand Terrace	Canyon	Entire Park
Capacity	69	7	14	27	117
2019					
25th percentile	7	5	5	1	20
Average	12	7	10	3	32
75th percentile	20	7	12	7	45
Maximum	48	9	18	50	98
Hours above capacity	0	8 (2.5%)	8 (2.5%)	4 (1.3%)	0
Days above capacity	0	2 (3.8%)	2 (3.8%)	1 (1.9%)	0
2020					
25th percentile	24	7	10	3	44
Average	32	7	12	6	57
75th percentile	40	7	12	9	70
Maximum	55	9	14	28	97
Hours above capacity	0	6 (2.1%)	0	2 (0.7%)	0
Days above capacity	0	6 (17.6%)	0	1 (2.9%)	0
2021					
25th percentile	15	6	9	1	33
Average	22	7	11	3	42
75th percentile	30	7	12	4	53
Maximum	71	22	16	29	101
Hours above capacity	9 (1.2%)	19 (2.5%)	6 (0.8%)	4 (0.5%)	0
Days above capacity	4 (4.1%)	7 (7.2%)	3 (3.1%)	2 (2.1%)	0

Notably, some of the maximum occupancy statistics for the four parking lots exceed the capacity of each lot in Table 2. With limited information regarding data collection, Perteet assumes that the data collector (either park rangers of Diamond Parking) counted all vehicles within each lot as well as potential adjacent curb spaces. For example, the maximum recording for the 99th lot in 2021 was 22 vehicles, which may have included 7 vehicles filling the striped capacity of the lot plus 15 additional vehicles along curb lines on 99th Avenue NE. It is also possible that some data may include a data-entry error.

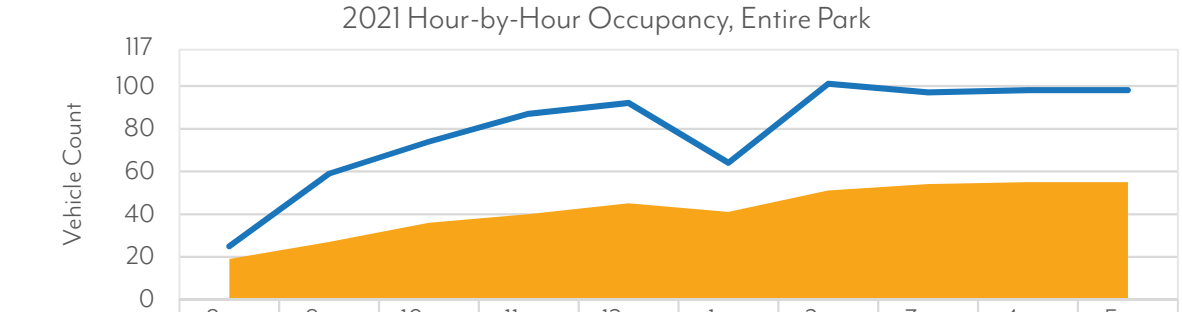
In addition to the above statistics, Perteet also examined data on an hour-to-hour level. Figure 2 displays a comparison of hourly trends averaged over each summer collection period for both the average parking occupancy of the whole Park and the maximum occupancy. The upper y-axis limit of 117 indicates the total capacity for the Park.



	10am	11am	12pm	1pm	2pm	3pm	4pm	5pm	6pm	7pm	8pm
Average	16	23	33	36	39	39	37	40	50	44	47
Maximum	37	51	76	79	98	98	92	85	76	87	70



	11am	12pm	1pm	2pm	3pm	4pm	5pm	6pm	7pm	8pm
Average	48	48	53	60	60	62	63	62	54	54
Maximum	80	84	90	94	97	95	93	84	87	79



	8am	9am	10am	11am	12pm	1pm	2pm	3pm	4pm	5pm
Average	19	27	36	40	45	41	51	54	55	55
Maximum	25	59	74	87	92	64	101	97	98	98

Figure 2. Park Total Hour-by-Hour Occupancy

File location: https://perteet.sharepoint.com/sites/ActiveProjects/201801180012BellevueMBayPh1_Parking_2021Internal/Traffic/06-Documentation/02-Final_Memo/Bellevue-MBayPh1-Parking_Memo.docx

Observations

The 99th and Grand Terrace parking lots stand out for the 25th percentile and average statistics approaching and exceeding capacity for several analysis years. This illustrates that these two lots often have little excess capacity and fill up more quickly than other parking lots for the Park.

The Marina and Canyon parking lots are well below meeting half of the capacity of the lot when looking at 75th percentile data. Contrary to the 99th and Grand Terrace parking lots, these parking lots require additional signage and routing for vehicles to find the lots off Lake Washington Boulevard NE.

The Marina lot shares stalls with marina tenants such that only 34 of 69 stalls (49%) are available to the public. In 2021, Diamond Parking tracked citations it issued to drivers parked illegally within any of the four lots at the Park. Out of 232 total citations issued between May and September 2021, 149 were permit-related violations in the Marina lot, an average of about 1.5 citations per day. While it is possible some of these citations were for ADA stalls (which require displaying an ADA permit), Perteet assumes the vast majority were Park attendees parking in a marina stall without the proper permit. Perteet recommends that future data collections distinguish by stall type (public or marina tenant) in the Marina lot for the 2022 and 2023 data collection years.

Table 2 provides the number of days throughout the data collection period with a measured occupancy greater than capacity in each lot and the overall Park. The Marina, Grand Terrace, and Canyon lots all exceeds capacity in fewer than 5% of measurement days in each year. The 99th lot, however, had higher numbers of days above capacity in both 2020 and 2021. The 2020 data shows the highest percentage of over-capacity days in the 99th lot at 17.6%. During each of these recordings at the 99th lot, however, the rest of the parking lots in 2020 did not record as overcapacity. Table 2 also demonstrates that the entire Park had 0 total days within 2019, 2020, and 2021 when the total amount of vehicles within the Park on a given day surpassed the 117-vehicle capacity.

In terms of hourly demand, 2019 data shows maximum occupancy at 2pm and 3pm, 2020 data at 3pm, and 2021 data at 2pm. Figure 2 shows majority of the maximum occupancy occurring between 2pm and 4pm for each study year. All data for 2019, 2020, and 2021 do not have maximum occupancies above the 117-stall total for the Park, with the highest maximum occupancy occurred in 2021 at 2pm with 101 vehicles. Table 2 also shows 0 total hours in the first three years since opening where the occupancy of the Park is above capacity.

Note that Meydenbauer Bay Park has historically seen park attendance and parking demand spike for two summer events—Fourth of July and SeaFair—that were affected in 2020 and 2021 by the COVID-19 pandemic and protocols. In these two years, Bellevue cancelled or modified the Fourth of July and SeaFair celebrations at the Park, resulting in lower-than-typical parking demand for these events. In future years without cancellations or modifications to these celebrations, parking demand for these days may exceed overall park capacity.

SIGNING

Currently, there are signs directing vehicles to the Marina and Canyon lots. To find the Marina lot, drivers must pass the 99th lot where one sign directs traffic southwest toward the boathouse as shown in Figure 3.

Figure 3. Sign to Marina Lot

Figure 4 shows guide drivers to the Canyon lot at the north corner of Lake Washington Boulevard NE and 99th Avenue NE, east corner of 99th Avenue NE and NE 1st Street, and north corner of NE 1st St and 98th Avenue NE.

Figure 4. Signs to Canyon Lot

The first "Meydenbauer Bay Park Additional Parking" sign on Lake Washington Boulevard NE and 99th Avenue NE is visible when vehicles approach the intersection on Lake Washington Boulevard NE. If a vehicle navigates to the 99th lot and sees that the lot is full, the driver may not be aware of the additional parking in the Canyon lot since the only sign in this lot for additional parking directs drivers to the Marina lot. Therefore, Perteet recommends installing another "Meydenbauer Bay Park Additional Parking [Up Arrow]" facing southwest on the existing stop sign post as drivers are exiting the 99th lot.

Another proposed location to help with the circulation of vehicles to the Canyon lot is adding a "Meydenbauer Bay Park Additional Parking [Right Arrow]" sign at the exit of the Grand Terrace Lot. This sign would help those who are unfamiliar with the various parking lots by directing the driver southeast on Lake Washington Boulevard NE. Drivers will then be able to see the existing "Meydenbauer Bay Park Additional Parking" sign at the north corner of 99th Avenue NE to help them navigate to the Canyon lot.

The City also has an alternative sign to help route drivers to additional parking lots. This alternative sign is currently implemented at the Red Cedar Coal Creek Parking Lot in Bellevue and it displays a QR code with an address to a neighboring parking lot. The City is considering the use of these QR-code signs at the Meydenbauer Bay Park and requested Perteet to identify possible QR sign locations throughout Meydenbauer Bay Park's parking lots with the Canyon lot address displayed. Perteet's location considerations are below if the City pursues this alternative signing strategy; however, the City will recommend the final sign placement if they choose to use QR signs.

In placing these signs, Perteet recommends considering that drivers may need to hold and control a cell phone while driving to utilize the QR functionality. As such, any QR signs should be located in areas where potential conflicts between drivers, other vehicles, and pedestrians are minimized to limit the potential for distracted-driving-related crashes.

Perteet evaluated three potential QR sign locations:

- **Before the exit of the Grand Terrace lot.** By placing the QR sign at the end of the drive aisle and before the exit, any driver distraction occurs prior to turning onto Lake Washington Boulevard NE.
- **Before the Marina lot north exit, heading toward 99th Avenue NE.** The QR sign location should provide significant sight distance to the pedestrian crosswalk.
- **Before the intersection of SE Bellevue Place and Meydenbauer Way SE, exiting the Marina lot from the south.** This location helps guide drivers without installing numerous routing signs from the south exit. Avoid placing QR sign at the intersection of SE Bellevue Place and Meydenbauer Way SE; provide as much distance from sign to intersection as practicable.

See Figure 5 on the following page for proposed signing additions and potential QR-sign locations, if used.

PERTEET

0 100 200
Feet

Legend

Streets

Parking Lot Boundary

Existing Sign

Proposed Sign

Potential QR Sign (City to Evaluate)

City of Bellevue

Meydenbauer Bay Park: Phase 1 Parking Analysis 2021

Figure 5. Existing, Proposed, and Potential QR Signs for the Park

Path: X:\Bellevue, City of\Projects\20180118 - Bellevue Eng On-Call\.0012 - Meydenbauer Ph 1 Parking Analysis 2021\GIS\Mapdocs\Meydenbauer2021 Aerial.mxd

Source: City of Bellevue; King County Imagery

CONCLUSIONS AND RECOMMENDATIONS

Perteet's review of the first three years of the Meydenbauer Park Phase 1 parking data concludes the following:

- The total 117-parking-space capacity of the Park has accommodated the total parking demand for the Park in each summer since 2019.
- The 99th and Grand Terrace lots show maximum usages slightly above the existing capacity. This could be the result of vehicles parked in access aisles or curb spaces.
- The slightly higher usage of the 99th and Grand Terrace lots indicate an opportunity for enhanced directional signing and potential parking enforcement.
- The 75th percentile vehicle counts, corresponding to high demand, is under the capacity of each individual lot and the Park as a whole.
- The entire Park has not experienced a single measured day or hour when the occupancy of the Park exceeds the capacity. However, if large-scale attendance for celebrations such as Fourth of July and/or SeaFair return in future years, the days of those events may see parking demand exceed capacity.
- The total amount of vehicles using the Park each year have remained relatively constant each year since 2019.

Perteet has signing recommendations for the City to help with the circulation of vehicles to Canyon lot, since the statistical analysis shows well-below capacity usage of that lot in the first three years since opening. Proposed signage includes:

- One "Meydenbauer Bay Park Additional Parking [Up Arrow]" sign, facing southwest at the 99th Avenue SE stop sign
- One "Meydenbauer Bay Park Additional Parking [Right Arrow]" sign, facing southwest at the Grand Terrace exit

If the City uses QR signage at this Park, Perteet recommends considering the factors described above regarding placement and minimizing driver distraction zones.

Lastly, for future data collection, Perteet recommends the data collector records the type of stall occupied in the Marina lot, either public or marina tenant.

The City will continue to monitor the parking occupancy for an additional two years, 2022 and 2023, to identify if there is a need for parking-related site changes in the future.

TECHNICAL MEMORANDUM

DATE: December 23, 2024

TO: Scott VanderHyden
City of Bellevue

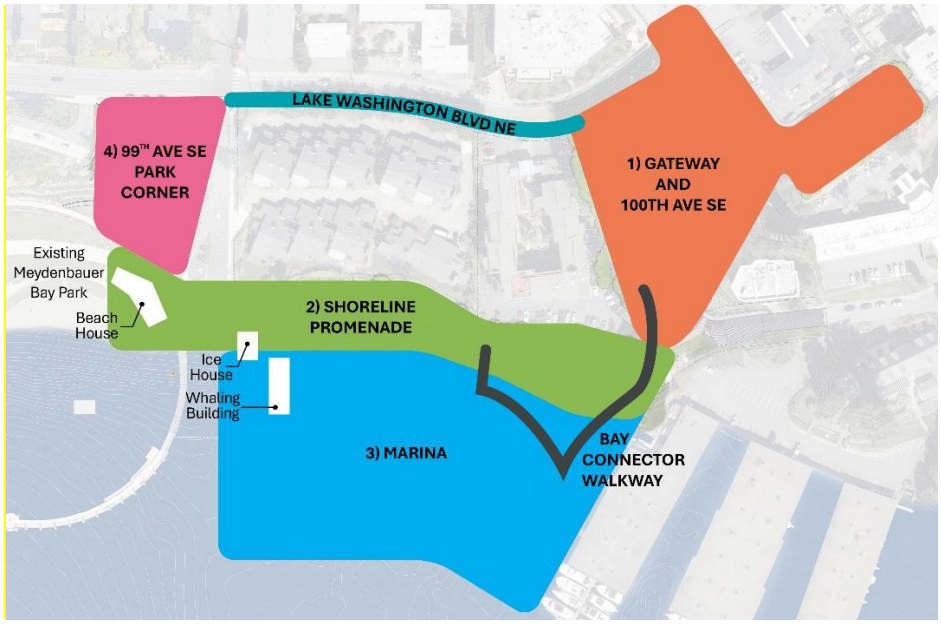
FROM: Chandler Waldal / Michael Read
TENW

SUBJECT: Traffic Site Access and Parking Demand Analysis
Meydenbauer Bay Park Phase 2 – Bellevue, WA
TENW Project No. 2023-181

This memorandum provides analysis of site access and parking demand to inform phased development and final build out of the proposed *Meydenbauer Bay Park Phase 2* project in Bellevue, WA. This memo includes a project description, parking demand analysis, a trip generation estimate, and a level of service analysis associated with proposed reconfigurations of public street site access and parking facilities associated with the project.

Project Description

The proposed *Meydenbauer Bay Park Phase 2* project is located at 419 98th Ave NE in Bellevue, WA. *Meydenbauer Bay Park Phase 2* may include development of the (1) Gateway Site, (2) Shoreline, (3) Marina, and (4) 99th Ave park corner owned by the City of Bellevue (see exhibit below).



The proposed project could provide a connection from the City's waterfront marina to Main Street and include a series of dynamic public spaces with various active uses. As part of the project, a number of existing parking lot facilities may be removed and new facilities constructed to enhance the waterfront environment and public experience. In addition, reorientation of 100th Avenue SE south of Main Street is considered.

Parking Demand Analysis

An activities-based parking generation approach was utilized to estimate cumulative parking demand for the proposed *Meydenbauer Bay Park Phase 2* project. The parking demand estimates were based upon project-specific information provided by the project team and separated into five (5) different parking use categories:

- Marina Parking: Marina parking demand was estimated for 31 slips and 14 visitors. Additionally, parking demand was estimated for potential captained boat rentals for 12 to 20 people.
- Gateway and Shoreline Parking: Kite Site and Shoreline parking demand was estimated for proposed flex and plaza spaces. Additionally, parking demand was estimated for potential mobile vendors.
- 99th Parking: 99th parking demand was estimated for up to 1,400 square feet (SF) of seating and path spaces. Additionally, parking demand was estimated for a potential 2,000 SF activity building.
- Misc Circulation Parking: miscellaneous circulation parking demand was estimated for various paths, including 99th Avenue SE and Kite Site paths, 100th Avenue SE sidewalks, and new shoreline paths.
- Staff Parking: staff parking demand was estimated for lifeguard, ranger, and REI parking. Additionally, parking demand was estimated for potential food truck/vendor staff parking.

For each of the parking use categories, peak parking demand was estimated based on the ratio of maximum person capacities and their associated stalls per unit of measure. In this study, peak demand is defined as typical parking demands when the park is in peak use (i.e., during the warmer summer months), but does not account for a-typical events such as Seafair and Holidays. These ratios were developed based upon industry metrics for expected person loads/capacities, consideration for vehicle occupancy ratios, and other travel modes expected of the varying proposed uses and park spaces. The peak parking demand calculations for each use category and total peak parking demand for the site are included in Table 1.

Table 1
Peak Parking Demand

Location / Description	Space Size/ Quantity	Max Person Capacity of Space	Avg People/ Vehicle	Peak Parking Demand
New Marina				
Monthly Rentable Slips	31 slips	32	2*	16*
Visitor Slips	14 slips	5	5	1
			Total Marina	**17**
Gateway and Shoreline				
Vendor Kiosk	1,000 SF	20	4	5
Flexible Space	5,000 SF	25	4	6
Plaza Space	6,200 SF	25	4	6
Seat Steps	1,000 SF	20	4	5
Pausing Spaces/Nodes	4,500 SF	20	4	5
Whaler Plaza	3,300 SF	25	4	6
			Total Kite Site and Shoreline	**33**
99th Development Area				
Seating Spaces	1,400 SF	10	4	3
Misc Circulation				
Paths & Sidewalks (99th, Gateway Site, Shoreline)	31,320 SF	20	4	5
			Total (without potentials and staffing)	**58**
Potentials				
99th Activity Building	2,000 SF	40	4	10
Portable Vendors	--	25	5	5
Marina Captain Boat Rentals	12 to 20 people	20	2	10
			Total Potentials	**25**
Staffing				
Lifeguard, Ranger, REI,	--	10	1	10
Portable Vendors	--	4	1	4
			Total Staffing	**14**
			TOTAL (with potentials and staffing)	**97**

*City of Bellevue Land Use Code 20.20.590 indicates 1 parking stall per 2 marina slips. This can be decreased as approved by the Director of the City of Bellevue Development Services Department.

Trip Generation

The current Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11th Edition, does not include a land use type that is consistent with the proposed development. For this reason, an activities-based trip generation approach was utilized to estimate new weekday peak hour and daily traffic impacts. The trip generation estimates for the proposed *Meydenbauer Bay Park Phase 2* project were based upon project-specific information provided by the project team and the parking demand calculations shown in Table 2 through application of time of day and day of week considerations.

The resulting new weekday daily, AM, afternoon, and PM peak hour trip generation for the proposed project is summarized in Table 2. Detailed trip generation calculations are included in Attachment A. It should be noted that these estimates assume a worst-case scenario where simultaneous use of multiple active and passive areas within the *Meydenbauer Bay Park Phase 2* project area occur during favorable weather conditions.

Table 2
Trip Generation Summary

	New Trips Generated		
Weekday Time Period	In	Out	Total
Daily	383	383	766
AM Peak Hour	21	7	28
Afternoon Peak Hour	57	54	111
PM Peak Hour	52	55	107

Traffic Operational Analysis

TENW completed a traffic operational analysis at five (5) study intersections within the Meydenbauer Bay Park project vicinity to determine if any potential traffic operational impacts would occur as a result of the *Meydenbauer Bay Park Phase 2* project. Additionally, the City is considering converting the existing two-way segment of 100th Avenue SE into one-way (southbound) traffic on 100th Ave SE (south of Main Street to Meydenbauer Way SE). As such, TENW also completed traffic operational analysis at the study intersections with one-way (southbound) traffic on 100th Ave SE to determine if any potential traffic operational impacts would occur as a result of the rechannelization of 100th Ave SE.

Traffic Volumes Forecasts

Existing weekday PM peak hour traffic counts were collected on May 9th, 2024. It should be noted that Main Street was holding a special event on May 9th, so these traffic counts and the associated traffic analysis should be considered conservative. The existing traffic count data is included in Attachment B. In order to estimate Year 2029 With Project peak hour traffic volumes, a 2 percent annual background growth rate was applied to existing 2024 volumes. In addition to the background growth rate, traffic generated by the potential development at the current Chevron station located on the southeast corner of 100th Avenue SE / Main Street (with up to 75 low-rise apartments and 6,050 square feet (SF) of miscellaneous retail) in addition to new traffic levels and redistributed trips (as a result of parking lot relocations) that would be generated by the *Meydenbauer Bay Park Phase 2* project traffic were included in the future PM peak hour traffic volume estimates. Additionally, background traffic was re-routed from northbound 100th Ave SE and within the surrounding area under the scenario with one-way (southbound) traffic on 100th Ave SE.

Intersection Levels of Service Findings

Existing and future peak hour level of service (LOS) analyses were conducted at the following intersections during the weekday PM peak hour:

1. 99th Ave SE / Lake Washington Blvd NE
2. 100th Ave SE / Main Street
3. 101st Ave SE / Main Street
4. 101st Ave SE / Meydenbauer Way SE
5. Meydenbauer Way SE / Bellevue Place

Level of service calculations were based on the use of *Synchro 12* traffic analysis software. LOS methodology is included in Attachment C.

Table 3 summarizes the weekday PM peak hour LOS analyses at the study intersections. Detailed LOS calculation sheets are included in Attachment C.

Table 3
Weekday PM Peak Hour LOS Summary

	2024 Existing			2029 With Project (existing channelization)			2029 With Project (1-way traffic on 100th)		
Intersection / Movement	LOS	Delay (sec)	Queue (ft)	LOS	Delay (sec)	Queue (ft)	LOS	Delay (sec)	Queue (ft)
Signalized									
2. 100th Ave SE/Lake Wash. Blvd NE	B	16.8	--	C	22.9	--	B	12.0	--
Northbound Approach	C	27.0	25'	C	32.6	75'	--	--	--
Eastbound Approach	B	13.0	200'	B	17.8	250'	A	8.5	250'
Westbound Approach	B	17.7	175'	C	22.2	250'	B	13.3	275'
Southbound Approach	B	18.5	350'	C	26.0	425'	B	13.8	425'
Two-Way Stop-Controlled									
1. 99th Ave SE/Lake Wash. Blvd NE									
Northbound Approach	C	24.0	25'	D	32.7	25'	D	32.8	25'
Eastbound Left-Turn	A	8.0	<25'	A	8.1	<25'	A	8.1	<25'
Westbound Left-Turn	A	8.3	<25'	A	8.5	<25'	A	8.5	<25'
Southbound Approach	B	11.0	<25'	B	11.7	<25'	B	11.7	<25'
4. 101st Ave SE/Meydenbauer Way SE									
Northbound Approach	A	7.9	0'	A	8.0	0'	A	8.0	0'
Shared Eastbound Left-Right Turn	B	13.2	50'	C	15.7	50'	D	25.5	150'
All-Way Stop-Controlled									
3. 101st Ave SE/Main St	B	14.8	--	C	20.0	--	C	24.8	--
Northbound Approach	B	10.9	25'	B	12.2	25'	C	16.1	75'
Eastbound Approach	C	16.2	125'	C	23.1	200'	D	29.6	225'
Westbound Approach	B	14.5	100'	C	19.6	150'	C	24.4	175'
5. Meydenbauer Way SE/Bellevue Pl	A	9.0	--	A	9.7	--	B	11.1	--
Northbound Approach	A	7.2	<25'	A	7.4	<25'	A	8.1	0'
Eastbound Approach	A	7.1	<25'	A	7.2	<25'	A	6.8	<25'
Westbound Approach	A	9.3	50'	B	10.1	50'	B	11.3	75'

As shown in Table 3, the individual movements at the study intersections are anticipated to operate at LOS D or better during the weekday PM peak hour in 2029; these projections assume understood future private development of the Chevron site and the proposed full buildout of the *Meydenbauer Bay Park* project. Future development is expected to have minor impacts on delay and queuing within the vicinity of Meydenbauer Bay Park for either the two-way or southbound-only scenarios for 100th Ave SE.

To ensure operational efficiency and improve pedestrian safety, if the City moves forward with southbound-only on 100th Avenue SE, the City should consider separating eastbound left and eastbound right-turn traffic at the 101st St SE/Meydenbauer Way SE and installing all-way stop control at the intersection.

If you have any questions regarding the information presented in this traffic assessment, please contact me at chandler@tenw.com or (760) 994-7376.

cc: Stephanie Woirol, Berger Partnership
Andy Mitton, Berger Partnership
Michael Read, TENW

Attachments

ATTACHMENT A

Trip Generation Calculations

Meydenbauer Bay Park Phase II

Trip Generation Forecasts
Weekday

Time Period	TRIP TOTALS 94 STALLS Entering	Exiting	Total	HOURLY TOTAL TRIPS Hour	Entering	Exiting	Total
12:00 - 12:30	0	0	**0**				
12:30 - 1:00	0	0	**0**	12:00-1:00 AM	0	0	0
1:00 - 1:30	0	0	**0**	12:30-1:30 AM	0	0	0
1:30 - 2:00	0	0	**0**	1:00-2:00 AM	0	0	0
2:00 - 2:30	0	0	**0**	1:30-2:30 AM	0	0	0
2:30 - 3:00	0	0	**0**	2:00-3:00 AM	0	0	0
3:00 - 3:30	0	0	**0**	2:30-3:30 AM	0	0	0
3:30 - 4:00	0	0	**0**	3:00-4:00 AM	0	0	0
4:00 - 4:30	0	0	**0**	3:30-4:30 AM	0	0	0
4:30 - 5:00	0	0	**0**	4:00-5:00 AM	0	0	0
5:00 - 5:30	0	0	**0**	4:30-5:30 AM	0	0	0
5:30 - 6:00	0	0	**0**	5:00-6:00 AM	0	0	0
6:00 - 6:30	3	1	**4**	5:30-6:30 AM	3	1	4
6:30 - 7:00	4	4	**8**	6:00-7:00 AM	7	5	12
7:00 - 7:30	9	5	**14**	6:30-7:30 AM	13	9	22
7:30 - 8:00	9	4	**13**	7:00-8:00 AM	18	9	27
8:00 - 8:30	12	3	**15**	**7:30-8:30 AM**	**21**	**7**	**28**
8:30 - 9:00	7	2	**9**	8:00-9:00 AM	19	5	24
9:00 - 9:30	6	3	**9**	8:30-9:30 AM	13	5	18
9:30 - 10:00	6	6	**12**	9:00-10:00 AM	12	9	21
10:00 - 10:30	7	6	**13**	9:30-10:30 AM	13	12	25
10:30 - 11:00	13	7	**20**	10:00-11:00 AM	20	13	33
11:00 - 11:30	25	8	**33**	10:30-11:30 AM	38	15	53
11:30 - Noon	34	16	**50**	11:00-12:00 PM	59	24	83
12:00 - 12:30	32	25	**57**	11:30-12:30 PM	66	41	107
12:30 - 1:00	25	29	**54**	**12:00-1:00 PM**	**57**	**54**	**111**
1:00 - 1:30	18	29	**47**	12:30-1:30 PM	43	58	101
1:30 - 2:00	6	21	**27**	1:00-2:00 PM	24	50	74
2:00 - 2:30	6	18	**24**	1:30-2:30 PM	12	39	51
2:30 - 3:00	6	8	**14**	2:00-3:00 PM	12	26	38
3:00 - 3:30	7	6	**13**	2:30-3:30 PM	13	14	27
3:30 - 4:00	16	7	**23**	3:00-4:00 PM	23	13	36
4:00 - 4:30	25	8	**33**	3:30-4:30 PM	41	15	56
4:30 - 5:00	30	15	**45**	4:00-5:00 PM	55	23	78
5:00 - 5:30	31	26	**57**	4:30-5:30 PM	61	41	102
5:30 - 6:00	21	29	**50**	**5:00-6:00 PM**	**52**	**55**	**107**
6:00 - 6:30	14	29	**43**	5:30-6:30 PM	35	58	93
6:30 - 7:00	7	23	**30**	6:00-7:00 PM	21	52	73
7:00 - 7:30	4	21	**25**	6:30-7:30 PM	11	44	55
7:30 - 8:00	0	10	**10**	7:00-8:00 PM	4	31	35
8:00 - 8:30	0	4	**4**	7:30-8:30 PM	0	14	14
8:30 - 9:00	0	4	**4**	8:00-9:00 PM	0	8	8
9:00 - 9:30	0	3	**3**	8:30-9:30 PM	0	7	7
9:30 - 10:00	0	3	**3**	9:00-10:00 PM	0	6	6
10:00 - 10:30	0	0	**0**	9:30-10:30 PM	0	3	3
10:30 - 11:00	0	0	**0**	10:00-11:00 PM	0	0	0
11:00 - 11:30	0	0	**0**	10:30-11:30 PM	0	0	0
11:30 - 12:00	0	0	**0**	11:00PM-12:00 AM	0	0	0
TOTAL TRIPS	**383**	**383**	**766**				

TRIP GENERATION SUMMARY	Entering	TOTAL Exiting	Total
Daily Trip Generation	383	383	766
AM Peak Hour (7:30-8:30AM)	21	7	28
Afternoon Peak Hour (12:00-1:00PM)	57	54	111
PM Peak Hour (5:00-6:00PM)	52	55	107

ATTACHMENT B

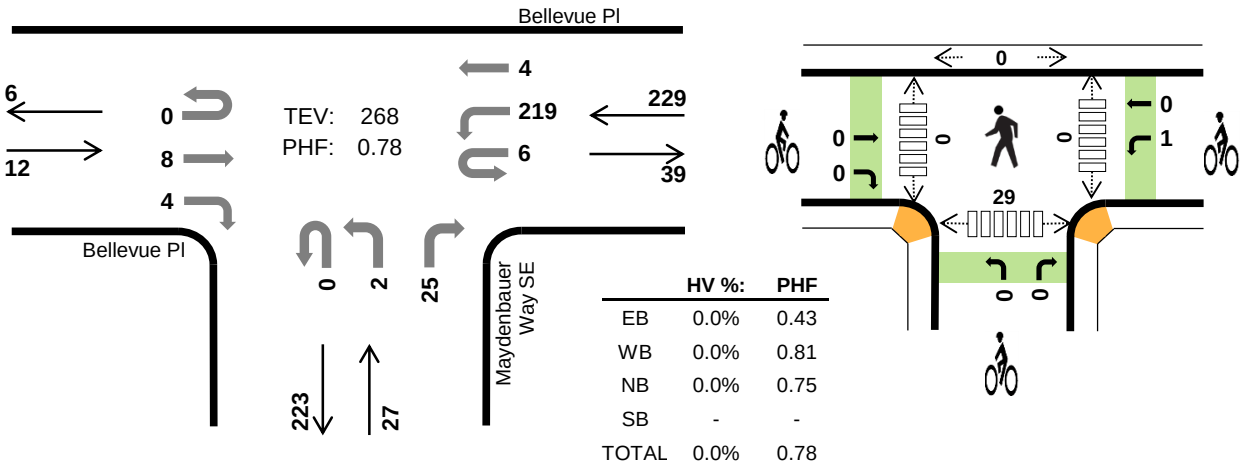
Traffic Counts

Maydenbauer Way SE
Bellevue Pl

N

Peak Hour

Date: 05/09/2024
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 5:00 PM to 6:00 PM



	HV %:	PHF
EB	0.0%	0.43
WB	0.0%	0.81
NB	0.0%	0.75
SB	-	-
TOTAL	0.0%	0.78

Two-Hour Count Summaries

Interval Start		Bellevue Pl Eastbound				Bellevue Pl Westbound				Maydenbauer Way SE Northbound				0 Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	0	2	0	27	0	0	0	0	0	5	0	0	0	0	34	0
4:15 PM		0	0	0	0	0	58	1	0	1	1	0	9	0	0	0	0	70	0
4:30 PM		0	0	1	2	0	50	1	0	0	3	0	4	0	0	0	0	61	0
4:45 PM		0	0	1	1	0	45	1	0	0	0	0	9	0	0	0	0	57	222
5:00 PM		**0**	**0**	**1**	**0**	**2**	**56**	**2**	**0**	**0**	**0**	**0**	**9**	**0**	**0**	**0**	**0**	**70**	258
5:15 PM		**0**	**0**	**1**	**1**	**0**	**47**	**0**	**0**	**0**	**2**	**0**	**2**	**0**	**0**	**0**	**0**	**53**	241
5:30 PM		**0**	**0**	**1**	**1**	**4**	**46**	**1**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**0**	**0**	**59**	239
5:45 PM		**0**	**0**	**5**	**2**	**0**	**70**	**1**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**0**	**0**	**86**	**268**
Count Total		0	0	10	9	6	399	7	0	1	6	0	52	0	0	0	0	490	0
Peak Hour	**All**	**0**	**0**	**8**	**4**	**6**	**219**	**4**	**0**	**0**	**2**	**0**	**25**	**0**	**0**	**0**	**0**	**268**	**0**
	HV	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	HV%	**-**	**-**	**0%**	**0%**	**0%**	**0%**	**0%**	**-**	**-**	**0%**	**-**	**0%**	**-**	**-**	**-**	**-**	**0%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	0	0	*0*	0	0	0	0	*0*	2	0	0	0	*2*
4:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	2	1	0	2	*5*
4:30 PM	0	1	0	0	*1*	0	0	0	0	*0*	0	5	0	9	*14*
4:45 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	1	0	2	*3*
5:00 PM	**0**	**0**	**0**	**0**	***0***	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**0**	**3**	*3*
5:15 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**12**	*12*
5:30 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**8**	*8*
5:45 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**6**	***6***
Count Total	0	1	0	0	*1*	0	1	0	0	*1*	4	7	0	42	*53*
Peak Hr	**0**	**0**	**0**	**0**	***0***	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**0**	**29**	***29***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Bellevue Pl				Bellevue Pl				Maydenbauer Way SE				0				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	1
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	1
5:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Count Total	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

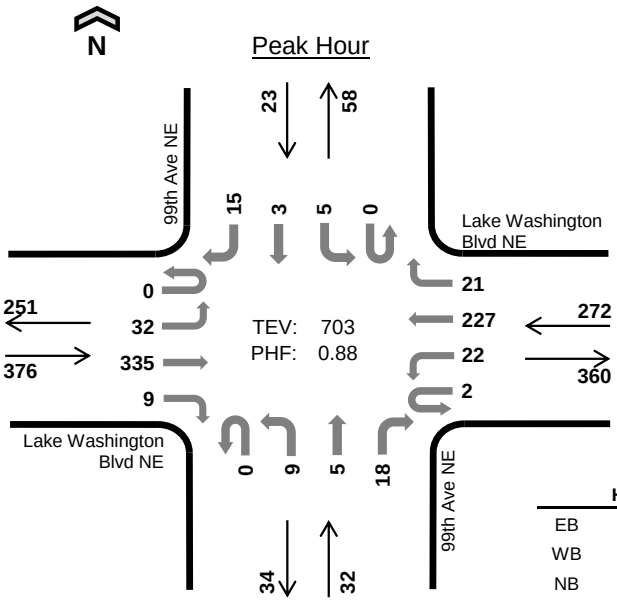
Two-Hour Count Summaries - Bikes

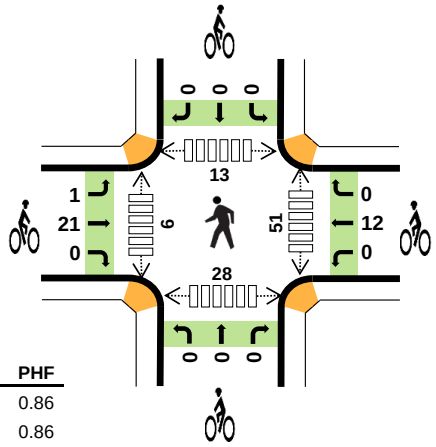
Interval Start	Bellevue Pl			Bellevue Pl			Maydenbauer Way SE			0			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	1
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	1
5:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	1
5:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
Count Total	0	0	0	1	0	0	0	0	0	0	0	0	1	0
Peak Hour	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

99th Ave NE
Lake Washington Blvd NE

Date: 05/09/2024
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:15 PM to 5:15 PM





	HV %:	PHF
EB	1.9%	0.86
WB	1.1%	0.86
NB	0.0%	0.80
SB	4.3%	0.72
TOTAL	1.6%	0.88

Two-Hour Count Summaries

Interval Start		Lake Washington Blvd NE Eastbound				Lake Washington Blvd NE Westbound				99th Ave NE Northbound				99th Ave NE Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	9	79	4	0	3	51	3	0	1	0	3	0	1	1	4	159	0
4:15 PM		**0**	**19**	**89**	**1**	**0**	**4**	**68**	**7**	**0**	**1**	**0**	**3**	**0**	**0**	**0**	**7**	**199**	0
4:30 PM		**0**	**3**	**71**	**4**	**1**	**6**	**64**	**4**	**0**	**4**	**3**	**3**	**0**	**1**	**2**	**2**	**168**	0
4:45 PM		**0**	**4**	**84**	**3**	**0**	**9**	**48**	**3**	**0**	**2**	**2**	**5**	**0**	**1**	**0**	**2**	**163**	689
5:00 PM		**0**	**6**	**91**	**1**	**1**	**3**	**47**	**7**	**0**	**2**	**0**	**7**	**0**	**3**	**1**	**4**	**173**	**703**
5:15 PM		0	6	74	3	0	3	41	2	0	1	1	4	0	1	1	4	141	645
5:30 PM		0	7	85	4	0	8	45	3	0	5	1	4	0	2	1	5	170	647
5:45 PM		0	8	120	5	0	6	52	2	0	2	3	5	0	2	3	4	212	696
Count Total		0	62	693	25	2	42	416	31	0	18	10	34	0	11	9	32	1,385	0
Peak Hour	**All**	**0**	**32**	**335**	**9**	**2**	**22**	**227**	**21**	**0**	**9**	**5**	**18**	**0**	**5**	**3**	**15**	**703**	**0**
	HV	**0**	**1**	**6**	**0**	**0**	**0**	**2**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**11**	**0**
	HV%	**-**	**3%**	**2%**	**0%**	**0%**	**0%**	**1%**	**5%**	**-**	**0%**	**0%**	**0%**	**-**	**0%**	**0%**	**7%**	**2%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	3	0	0	0	*3*	1	2	0	0	*3*	15	0	6	17	*38*
4:15 PM	**1**	**3**	**0**	**0**	***4***	**3**	**2**	**0**	**0**	***5***	**12**	**0**	**4**	**6**	*22*
4:30 PM	**3**	**0**	**0**	**0**	***3***	**4**	**3**	**0**	**0**	***7***	**14**	**5**	**4**	**4**	*27*
4:45 PM	**2**	**0**	**0**	**1**	***3***	**2**	**3**	**0**	**0**	***5***	**8**	**0**	**3**	**6**	*17*
5:00 PM	**1**	**0**	**0**	**0**	***1***	**13**	**4**	**0**	**0**	***17***	**17**	**1**	**2**	**12**	***32***
5:15 PM	1	1	0	0	*2*	7	11	0	0	*18*	21	1	3	4	*29*
5:30 PM	1	0	0	0	*1*	4	6	0	0	*10*	36	1	3	19	*59*
5:45 PM	2	0	0	0	*2*	6	7	0	0	*13*	27	3	1	22	*53*
Count Total	14	4	0	1	*19*	40	38	0	0	*78*	150	11	26	90	*277*
Peak Hour	**7**	**3**	**0**	**1**	***11***	**22**	**12**	**0**	**0**	***34***	**51**	**6**	**13**	**28**	***98***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Lake Washington Blvd NE				Lake Washington Blvd NE				99th Ave NE				99th Ave NE				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
4:15 PM	**0**	**0**	**1**	**0**	**0**	**0**	**2**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	0
4:30 PM	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	0
4:45 PM	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**3**	13
5:00 PM	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**11**
5:15 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	9
5:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7
5:45 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2	6
Count Total	0	1	12	1	0	0	3	1	0	0	0	0	0	0	0	1	19	0
Peak Hour	**0**	**1**	**6**	**0**	**0**	**0**	**2**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**11**	**0**

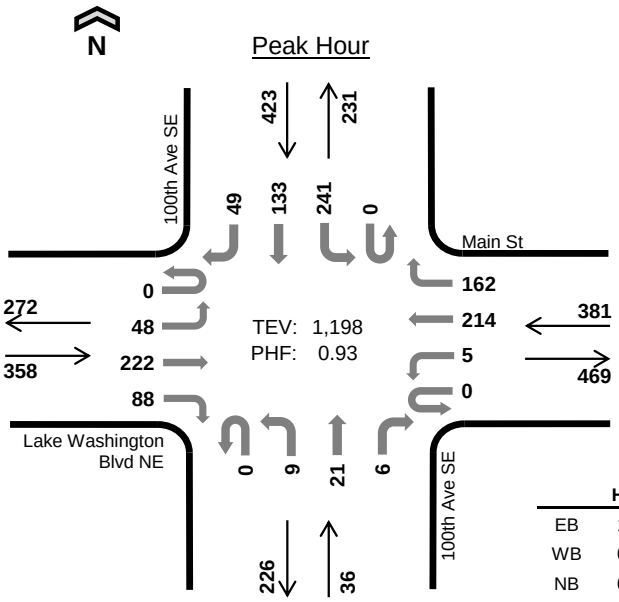
Two-Hour Count Summaries - Bikes

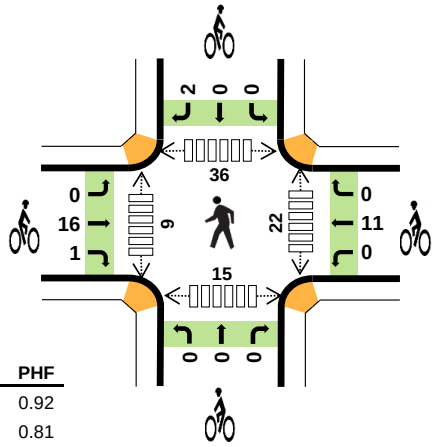
Interval Start	Lake Washington Blvd NE			Lake Washington Blvd NE			99th Ave NE			99th Ave NE			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	1	0	0	2	0	0	0	0	0	0	0	3	0
4:15 PM	**0**	**3**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	0
4:30 PM	**0**	**4**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7**	0
4:45 PM	**0**	**2**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	20
5:00 PM	**1**	**12**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**17**	**34**
5:15 PM	0	7	0	0	11	0	0	0	0	0	0	0	18	47
5:30 PM	0	4	0	0	6	0	0	0	0	0	0	0	10	50
5:45 PM	0	6	0	0	7	0	0	0	0	0	0	0	13	58
Count Total	1	39	0	0	38	0	0	0	0	0	0	0	78	0
Peak Hour	**1**	**21**	**0**	**0**	**12**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**34**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

100th Ave SE
Lake Washington Blvd NE

Date: 05/09/2024
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:15 PM to 5:15 PM





	HV %:	PHF
EB	1.7%	0.92
WB	0.3%	0.81
NB	0.0%	0.82
SB	0.7%	0.94
TOTAL	0.8%	0.93

Two-Hour Count Summaries

Interval Start		Lake Washington Blvd NE Eastbound				Main St Westbound				100th Ave SE Northbound				100th Ave SE Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	10	49	11	0	1	48	32	0	0	2	3	0	61	17	11	245	0
4:15 PM		**0**	**11**	**51**	**20**	**0**	**2**	**62**	**53**	**0**	**3**	**6**	**1**	**0**	**62**	**41**	**9**	**321**	0
4:30 PM		**0**	**12**	**66**	**19**	**0**	**1**	**60**	**37**	**0**	**3**	**1**	**2**	**0**	**57**	**34**	**12**	**304**	0
4:45 PM		**0**	**14**	**55**	**20**	**0**	**2**	**47**	**38**	**0**	**1**	**7**	**1**	**0**	**55**	**28**	**14**	**282**	1,152
5:00 PM		**0**	**11**	**50**	**29**	**0**	**0**	**45**	**34**	**0**	**2**	**7**	**2**	**0**	**67**	**30**	**14**	**291**	**1,198**
5:15 PM		0	8	58	16	0	3	37	30	0	0	3	0	0	41	40	14	250	1,127
5:30 PM		0	12	52	23	0	1	44	40	0	0	3	1	0	52	29	13	270	1,093
5:45 PM		0	18	70	33	0	0	48	46	0	2	6	1	0	39	41	10	314	1,125
Count Total		0	96	451	171	0	10	391	310	0	11	35	11	0	434	260	97	2,277	0
Peak Hour	**All**	**0**	**48**	**222**	**88**	**0**	**5**	**214**	**162**	**0**	**9**	**21**	**6**	**0**	**241**	**133**	**49**	**1,198**	**0**
	HV	**0**	**0**	**6**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**2**	**10**	**0**
	HV%	**-**	**0%**	**3%**	**0%**	**-**	**0%**	**0%**	**0%**	**-**	**0%**	**0%**	**0%**	**-**	**0%**	**1%**	**4%**	**1%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	1	2	0	0	*3*	1	3	0	1	*5*	3	1	11	4	*19*
4:15 PM	**2**	**1**	**0**	**2**	***5***	**2**	**1**	**0**	**0**	***3***	**7**	**1**	**9**	**3**	*20*
4:30 PM	**2**	**0**	**0**	**1**	***3***	**3**	**2**	**0**	**0**	***5***	**6**	**0**	**8**	**1**	*15*
4:45 PM	**1**	**0**	**0**	**0**	***1***	**1**	**3**	**0**	**0**	***4***	**5**	**3**	**11**	**8**	*27*
5:00 PM	**1**	**0**	**0**	**0**	***1***	**11**	**5**	**0**	**2**	***18***	**4**	**5**	**8**	**3**	***20***
5:15 PM	0	1	0	1	*2*	7	8	0	4	*19*	0	1	12	5	*18*
5:30 PM	1	1	0	0	*2*	4	4	0	1	*9*	4	0	17	6	*27*
5:45 PM	4	0	0	1	*5*	3	6	0	3	*12*	8	0	22	17	*47*
Count Total	12	5	0	5	*22*	32	32	0	11	*75*	37	11	98	47	*193*
Peak Hour	**6**	**1**	**0**	**3**	***10***	**17**	**11**	**0**	**2**	***30***	**22**	**9**	**36**	**15**	***82***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Lake Washington Blvd NE				Main St				100th Ave SE				100th Ave SE				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	3	0
4:15 PM	**0**	**0**	**2**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**5**	0
4:30 PM	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**3**	0
4:45 PM	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	12
5:00 PM	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**10**
5:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	2	7
5:30 PM	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	2	6
5:45 PM	0	1	3	0	0	0	0	0	0	0	0	0	0	1	0	0	5	10
Count Total	0	1	11	0	0	0	2	3	0	0	0	0	0	2	1	2	22	0
Peak Hour	**0**	**0**	**6**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**2**	**10**	**0**

Two-Hour Count Summaries - Bikes

Interval Start	Lake Washington Blvd NE			Main St			100th Ave SE			100th Ave SE			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	1	0	0	2	1	0	0	0	1	0	0	5	0
4:15 PM	**0**	**2**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	0
4:30 PM	**0**	**3**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	0
4:45 PM	**0**	**1**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	17
5:00 PM	**0**	**10**	**1**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**18**	**30**
5:15 PM	0	7	0	0	8	0	0	0	0	3	0	1	19	46
5:30 PM	0	4	0	0	4	0	0	0	0	0	0	1	9	50
5:45 PM	0	3	0	0	6	0	0	0	0	0	0	3	12	58
Count Total	0	31	1	0	31	1	0	0	0	4	0	7	75	0
Peak Hour	**0**	**16**	**1**	**0**	**11**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**30**	**0**

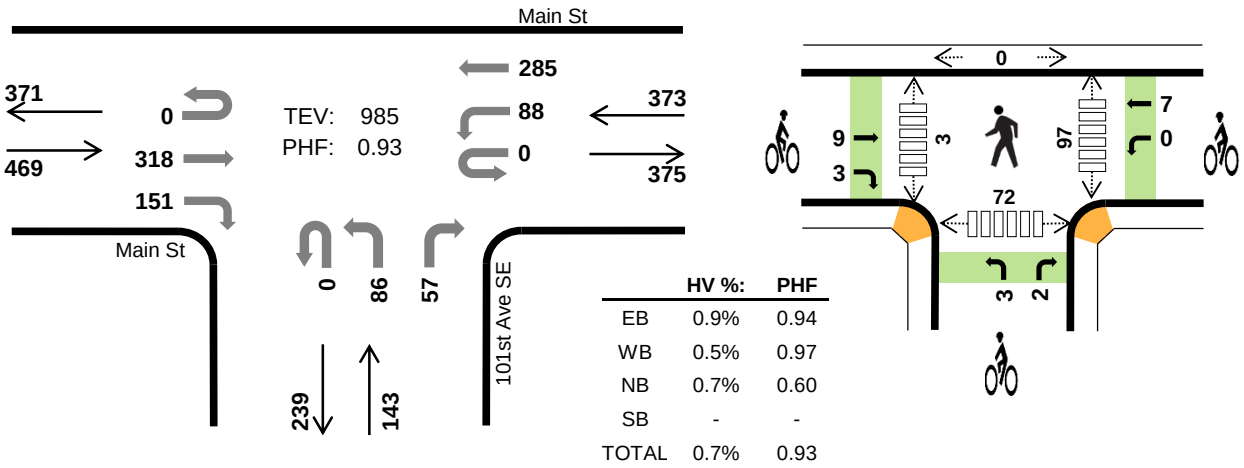
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

101st Ave SE
Main St

N

Peak Hour

Date: 05/09/2024
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:15 PM to 5:15 PM



Two-Hour Count Summaries

Interval Start	Main St Eastbound				Main St Westbound				101st Ave SE Northbound				0 Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	72	40	0	18	76	0	0	11	0	10	0	0	0	0	227	0
4:15 PM	**0**	**0**	**71**	**37**	**0**	**23**	**73**	**0**	**0**	**38**	**0**	**22**	**0**	**0**	**0**	**0**	**264**	0
4:30 PM	**0**	**0**	**78**	**47**	**0**	**14**	**80**	**0**	**0**	**13**	**0**	**9**	**0**	**0**	**0**	**0**	**241**	0
4:45 PM	**0**	**0**	**82**	**33**	**0**	**24**	**70**	**0**	**0**	**18**	**0**	**12**	**0**	**0**	**0**	**0**	**239**	971
5:00 PM	**0**	**0**	**87**	**34**	**0**	**27**	**62**	**0**	**0**	**17**	**0**	**14**	**0**	**0**	**0**	**0**	**241**	**985**
5:15 PM	0	0	76	25	0	21	56	0	0	13	0	19	0	0	0	0	210	931
5:30 PM	0	0	77	24	0	23	61	0	0	21	0	21	0	0	0	0	227	917
5:45 PM	0	0	74	38	0	16	74	0	0	15	0	12	0	0	0	0	229	907
Count Total	0	0	617	278	0	166	552	0	0	146	0	119	0	0	0	0	1,878	0
Peak Hour All	**0**	**0**	**318**	**151**	**0**	**88**	**285**	**0**	**0**	**86**	**0**	**57**	**0**	**0**	**0**	**0**	**985**	**0**
Peak Hour HV	**0**	**0**	**2**	**2**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**7**	**0**
Peak Hour HV%	**-**	**-**	**1%**	**1%**	**-**	**0%**	**1%**	**-**	**-**	**0%**	**-**	**2%**	**-**	**-**	**-**	**-**	**1%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	2	2	1	0	*5*	0	3	1	0	*4*	17	0	0	29	*46*
4:15 PM	**2**	**1**	**1**	**0**	***4***	**3**	**1**	**0**	**0**	***4***	**20**	**2**	**0**	**20**	*42*
4:30 PM	**2**	**1**	**0**	**0**	***3***	**2**	**1**	**3**	**0**	***6***	**29**	**1**	**0**	**20**	*50*
4:45 PM	**0**	**0**	**0**	**0**	***0***	**1**	**2**	**0**	**0**	***3***	**22**	**0**	**0**	**13**	*35*
5:00 PM	**0**	**0**	**0**	**0**	***0***	**6**	**3**	**2**	**0**	***11***	**26**	**0**	**0**	**19**	***45***
5:15 PM	1	0	1	0	*2*	5	4	0	0	*9*	28	0	0	27	*55*
5:30 PM	0	0	0	0	*0*	3	4	0	0	*7*	37	0	0	51	*88*
5:45 PM	1	0	0	0	*1*	2	3	3	0	*8*	46	2	0	51	*99*
Count Total	8	4	3	0	*15*	22	21	9	0	*52*	225	5	0	230	*460*
Peak Hr	**4**	**2**	**1**	**0**	***7***	**12**	**7**	**5**	**0**	***24***	**97**	**3**	**0**	**72**	***172***

Two-Hour Count Summaries - Heavy Vehicles

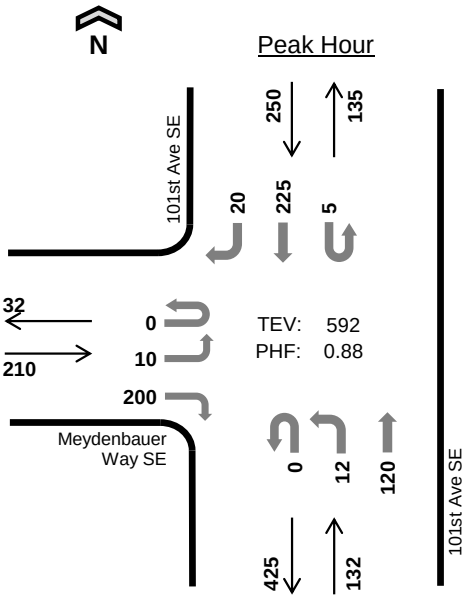
Interval Start	Main St Eastbound				Main St Westbound				101st Ave SE Northbound				0 Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	2	0	0	2	0	0	0	0	1	0	0	0	0	5	0
4:15 PM	**0**	**0**	**2**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**4**	0
4:30 PM	**0**	**0**	**0**	**2**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	12
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7**
5:15 PM	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	2	5
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:45 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	3
Count Total	0	0	3	5	0	0	4	0	0	1	0	2	0	0	0	0	15	0
Peak Hour	**0**	**0**	**2**	**2**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**7**	**0**

Two-Hour Count Summaries - Bikes

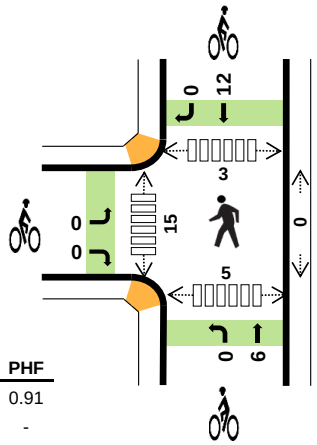
Interval Start	Main St Eastbound			Main St Westbound			101st Ave SE Northbound			0 Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	0	0	1	2	0	0	0	1	0	0	0	4	0
4:15 PM	**0**	**3**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	0
4:30 PM	**0**	**2**	**0**	**0**	**1**	**0**	**2**	**0**	**1**	**0**	**0**	**0**	**6**	0
4:45 PM	**0**	**1**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	17
5:00 PM	**0**	**3**	**3**	**0**	**3**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**11**	**24**
5:15 PM	0	3	2	0	4	0	0	0	0	0	0	0	9	29
5:30 PM	0	1	2	0	4	0	0	0	0	0	0	0	7	30
5:45 PM	0	2	0	1	2	0	3	0	0	0	0	0	8	35
Count Total	0	15	7	2	19	0	6	0	3	0	0	0	52	0
Peak Hour	**0**	**9**	**3**	**0**	**7**	**0**	**3**	**0**	**2**	**0**	**0**	**0**	**24**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

101st Ave SE
Meydenbauer Way SE



Date: 05/09/2024
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:15 PM to 5:15 PM



	HV %:	PHF
EB	0.5%	0.91
WB	-	-
NB	0.8%	0.61
SB	1.2%	0.95
TOTAL	0.8%	0.88

Two-Hour Count Summaries

Interval Start		Meydenbauer Way SE Eastbound				0 Westbound				101st Ave SE Northbound				101st Ave SE Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	3	0	31	0	0	0	0	0	0	25	0	1	0	47	3	110	0
4:15 PM		**0**	**4**	**0**	**50**	**0**	**0**	**0**	**0**	**0**	**3**	**51**	**0**	**2**	**0**	**52**	**6**	**168**	0
4:30 PM		**0**	**3**	**0**	**50**	**0**	**0**	**0**	**0**	**0**	**2**	**15**	**0**	**0**	**0**	**59**	**7**	**136**	0
4:45 PM		**0**	**1**	**0**	**44**	**0**	**0**	**0**	**0**	**0**	**5**	**28**	**0**	**2**	**0**	**58**	**1**	**139**	553
5:00 PM		**0**	**2**	**0**	**56**	**0**	**0**	**0**	**0**	**0**	**2**	**26**	**0**	**1**	**0**	**56**	**6**	**149**	**592**
5:15 PM		1	1	0	50	0	0	0	0	0	3	28	0	1	0	40	7	131	555
5:30 PM		0	4	0	43	0	0	0	0	1	3	30	0	10	0	42	10	143	562
5:45 PM		0	2	0	68	0	0	0	0	1	8	20	0	2	0	45	6	152	575
Count Total		1	20	0	392	0	0	0	0	2	26	223	0	19	0	399	46	1,128	0
Peak Hour	**All**	**0**	**10**	**0**	**200**	**0**	**0**	**0**	**0**	**0**	**12**	**120**	**0**	**5**	**0**	**225**	**20**	**592**	**0**
	HV	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**3**	**0**	**5**	**0**
	HV%	**-**	**0%**	**-**	**1%**	**-**	**-**	**-**	**-**	**-**	**0%**	**1%**	**-**	**0%**	**-**	**1%**	**0%**	**1%**	**0**

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	1	0	*1*	0	0	1	2	*3*	0	4	2	0	*6*
4:15 PM	**0**	**0**	**1**	**0**	***1***	**0**	**0**	**1**	**2**	***3***	**0**	**5**	**0**	**2**	*7*
4:30 PM	**1**	**0**	**0**	**2**	***3***	**0**	**0**	**3**	**1**	***4***	**0**	**6**	**1**	**1**	*8*
4:45 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**1**	***1***	**0**	**2**	**1**	**1**	*4*
5:00 PM	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**2**	**8**	***10***	**0**	**2**	**1**	**1**	***4***
5:15 PM	1	0	1	0	*2*	0	0	0	6	*6*	0	7	0	0	*7*
5:30 PM	0	0	0	0	*0*	0	0	0	2	*2*	0	7	0	2	*9*
5:45 PM	0	0	0	2	*2*	0	0	5	4	*9*	0	4	0	0	*4*
Count Total	2	0	3	5	*10*	0	0	12	26	*38*	0	37	5	7	*49*
Peak Hr	**1**	**0**	**1**	**3**	***5***	**0**	**0**	**6**	**12**	***18***	**0**	**15**	**3**	**5**	***23***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Meydenbauer Way SE				0				101st Ave SE				101st Ave SE				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	0
4:30 PM	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**3**	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	5
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**5**
5:15 PM	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	2	6
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	5
Count Total	0	0	0	2	0	0	0	0	0	0	3	0	0	0	5	0	10	0
Peak Hour	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**3**	**0**	**5**	**0**

Two-Hour Count Summaries - Bikes

Interval Start	Meydenbauer Way SE			0			101st Ave SE			101st Ave SE			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	1	0	0	2	0	3	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**2**	**0**	**3**	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**1**	**0**	**4**	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	11
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**8**	**0**	**10**	**18**
5:15 PM	0	0	0	0	0	0	0	0	0	0	6	0	6	21
5:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	2	19
5:45 PM	0	0	0	0	0	0	0	5	0	0	4	0	9	27
Count Total	0	0	0	0	0	0	0	12	0	0	26	0	38	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**12**	**0**	**18**	**0**

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

ATTACHMENT C

Level of Service Calculations

Level of Service Methodology

Level of Service (LOS) generally refers to the degree of congestion at an intersection. It is a measure of vehicle operating speed, travel time, travel delays, and driving comfort. A letter scale from A to F generally describes intersection LOS.

Signalized Intersection LOS represents the average control delay (sec/veh) and can be reported for the overall intersection, for each approach, and for each lane group (additional v/c ratio criteria apply to lane group LOS only). The table below outlines the HCM (7th Edition) LOS criteria for signalized intersections.

LOS Criteria for Signalized Intersections [1]

Control Delay (sec/veh)	Level of Service [2]	General Description [3]
≤ 10	A	Exceptionally Favorable Progression (or very short cycle lengths) – Most vehicles arrive during the green indication and travel through the intersection without stopping.
> 10 to ≤ 20	B	Highly Favorable Progression (or short cycle lengths) – While more vehicles than LOS A stop, most vehicles still pass through the intersection without stopping.
> 20 to ≤ 35	C	Favorable Progression (or moderate cycle lengths) – Individual cycle failures begin to appear, but many vehicles still pass through the intersection without stopping.
> 35 to ≤ 55	D	Ineffective Progression (or long cycle lengths) – Many vehicles stop and individual cycle failures are noticeable.
> 55 to ≤ 80	E	Unfavorable Progression (and long cycle lengths) – Individual cycle failures are frequent.
> 80	F	Very Poor Progression (and long cycle lengths) – Most cycles fail to clear the queue at this level.

1 Source: Highway Capacity Manual 7th Edition, Transportation Research Board, 2021.
2 If the volume-to-capacity (v/c) ratio for a lane group exceeds 1.0, LOS F is assigned to the individual lane group. For approach-based and intersection-wide assessments at signals, LOS is defined solely by control delay.
3 Individual cycle failures: one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle.

Synchro 12 and/or HCM 2000 LOS methodology may be used when HCM 7th Edition methodology is not supported at an intersection (i.e., intersection geometry and/or custom phasing) or jurisdictional standards require use of an alternative methodology.

Unsignalized Intersection LOS (two-way stop control, all-way stop control, and roundabouts) is based on the average control delay. For two-way stop-controlled intersections, the LOS criteria apply to each controlled minor-street approach, controlled minor-street lane group, and controlled major-street movement (additional v/c ratio criteria apply to lane group LOS only). LOS is not calculated for major-street approaches or for the intersection as a whole at two-way stop-controlled intersections. For all-way stop-controlled intersections and roundabouts, LOS can be reported for the overall intersection, for each approach, and for each lane group (additional v/c ratio criteria apply to lane group LOS only). The table below outlines the HCM (7th Edition) LOS criteria for unsignalized intersections based on these methodologies.

LOS Criteria for Unsignalized Intersections[1]

Control Delay (sec/veh)	Level of Service [2]
≤ 10	A
> 10 to ≤ 15	B
> 15 to ≤ 25	C
> 25 to ≤ 35	D
> 35 to ≤ 50	E
> 50	F

1 Source: Highway Capacity Manual 7th Edition, Transportation Research Board, 2021.
2 If the volume-to-capacity (v/c) ratio for a lane group exceeds 1.0, LOS F is assigned to the individual lane group. For approach-based and intersection-wide assessments at unsignalized intersections, LOS is defined solely by control delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	335	9	24	227	21	9	5	18	5	3	15
Future Volume (vph)	32	335	9	24	227	21	9	5	18	5	3	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			3%			15%			-13%	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		287			665			301			290	
Travel Time (s)		6.5			15.1			8.2			7.9	
Confl. Peds. (#/hr)	13		28	28		13	6		51	51		6
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	0%	0%	0%	4%	4%	4%
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	32	335	9	24	227	21	9	5	18	5	3	15
Future Vol, veh/h	32	335	9	24	227	21	9	5	18	5	3	15
Conflicting Peds, #/hr	13	0	28	28	0	13	6	0	51	51	0	6
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	3	-	-	15	-	-	-13	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	1	1	1	0	0	0	4	4	4
Mvmt Flow	36	381	10	27	258	24	10	6	20	6	3	17

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	295	0	0	419	0	0	807	836	465	845	829	289
Stage 1	-	-	-	-	-	-	487	487	-	337	337	-
Stage 2	-	-	-	-	-	-	320	349	-	507	492	-
Critical Hdwy	4.12	-	-	4.11	-	-	10.1	9.5	7.7	4.54	3.94	4.94
Critical Hdwy Stg 1	-	-	-	-	-	-	9.1	8.5	-	3.54	2.94	-
Critical Hdwy Stg 2	-	-	-	-	-	-	9.1	8.5	-	3.54	2.94	-
Follow-up Hdwy	2.218	-	-	2.209	-	-	3.5	4	3.3	3.536	4.036	3.336
Pot Cap-1 Maneuver	1267	-	-	1146	-	-	154	152	496	516	553	827
Stage 1	-	-	-	-	-	-	377	369	-	858	813	-
Stage 2	-	-	-	-	-	-	533	476	-	785	777	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1251	-	-	1115	-	-	136	137	459	416	497	813
Mov Cap-2 Maneuver	-	-	-	-	-	-	136	137	-	416	497	-
Stage 1	-	-	-	-	-	-	354	346	-	823	780	-
Stage 2	-	-	-	-	-	-	501	456	-	676	728	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.68	0.73	24.03	10.96
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	225	152	-	-	156	-	-	630
HCM Lane V/C Ratio	0.161	0.029	-	-	0.024	-	-	0.041
HCM Control Delay (s/veh)	24	8	0	-	8.3	0	-	11
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.6	0.1	-	-	0.1	-	-	0.1

Lane Group	EBL	EBT	WBT	WBR	NBT	SBT	SBR
Lane Group Flow (vph)	52	334	235	174	39	402	53
v/c Ratio	0.15	0.56	0.49	0.38	0.13	0.67	0.09
Control Delay (s/veh)	17.6	20.5	27.3	7.5	22.4	29.4	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	17.6	20.5	27.3	7.5	22.4	29.4	0.3
Queue Length 50th (ft)	13	90	82	0	12	131	0
Queue Length 95th (ft)	41	203	176	49	37	#342	0
Internal Link Dist (ft)		585	363		126	388	
Turn Bay Length (ft)	130			200			
Base Capacity (vph)	358	1036	728	613	637	823	775
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.32	0.32	0.28	0.06	0.49	0.07

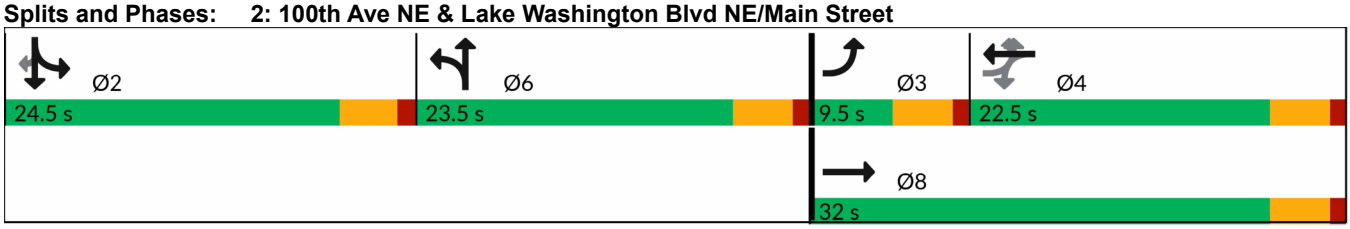
Intersection Summary

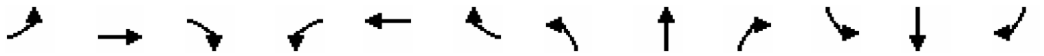
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	48	222	88	5	214	162	9	21	6	241	133	49
Future Volume (vph)	48	222	88	5	214	162	9	21	6	241	133	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		4%			0%			12%			-8%	
Storage Length (ft)	130		0	0		200	0		0	175		0
Storage Lanes	1		0	0		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		665			443			206			468	
Travel Time (s)		15.1			10.1			5.6			12.8	
Confl. Peds. (#/hr)	36		15	15		36	9		22	22		9
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	0%	0%	0%	1%	1%	1%
Parking (#/hr)						0	0	0	0			
Shared Lane Traffic (%)												
Turn Type	D.P+P	NA		Perm	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	3	8			4		6	6		2	2	
Permitted Phases	4			4		4						2
Detector Phase	3	8		4	4	4	6	6		2	2	2
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	9.5	25.5		22.5	22.5	22.5	23.5	23.5		23.5	23.5	23.5
Total Split (s)	9.5	32.0		22.5	22.5	22.5	23.5	23.5		24.5	24.5	24.5
Total Split (%)	11.9%	40.0%		28.1%	28.1%	28.1%	29.4%	29.4%		30.6%	30.6%	30.6%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0			0.0	0.0
Total Lost Time (s)	4.5	4.5			4.5	4.5		4.5			4.5	4.5
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Recall Mode	None	Min		Min	Min	Min	None	None		None	None	None

Intersection Summary	
Area Type:	Other
Cycle Length: 80	
Actuated Cycle Length: 56.5	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	

Splits and Phases: 2: 100th Ave NE & Lake Washington Blvd NE/Main Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	222	88	5	214	162	9	21	6	241	133	49
Future Volume (veh/h)	48	222	88	5	214	162	9	21	6	241	133	49
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.97		0.95	0.96		0.93	1.00		0.89	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1776	1776	1776	1885	1885	1885	1052	1052	1052	2200	2200	2200
Adj Flow Rate, veh/h	52	239	95	5	230	174	10	23	6	259	143	53
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	1	1	1	0	0	0	1	1	1
Cap, veh/h	352	459	183	74	463	331	21	47	12	362	200	472
Arrive On Green	0.05	0.39	0.39	0.25	0.25	0.25	0.09	0.09	0.09	0.26	0.26	0.26
Sat Flow, veh/h	1692	1190	473	11	1865	1334	228	525	137	1373	758	1786
Grp Volume(v), veh/h	52	0	334	235	0	174	39	0	0	402	0	53
Grp Sat Flow(s),veh/h/ln	1692	0	1664	1876	0	1334	890	0	0	2131	0	1786
Q Serve(g_s), s	1.2	0.0	8.0	0.0	0.0	5.9	2.2	0.0	0.0	8.9	0.0	1.2
Cycle Q Clear(g_c), s	1.2	0.0	8.0	5.6	0.0	5.9	2.2	0.0	0.0	8.9	0.0	1.2
Prop In Lane	1.00		0.28	0.02		1.00	0.26		0.15	0.64		1.00
Lane Grp Cap(c), veh/h	352	0	642	537	0	331	80	0	0	562	0	472
V/C Ratio(X)	0.15	0.00	0.52	0.44	0.00	0.53	0.49	0.00	0.00	0.71	0.00	0.11
Avail Cap(c_a), veh/h	429	0	882	719	0	463	326	0	0	822	0	689
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.5	0.0	12.2	16.7	0.0	16.9	22.5	0.0	0.0	17.3	0.0	14.5
Incr Delay (d2), s/veh	0.2	0.0	0.7	0.6	0.0	1.3	4.5	0.0	0.0	1.7	0.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	2.6	2.2	0.0	1.7	0.5	0.0	0.0	4.2	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	13.7	0.0	12.9	17.3	0.0	18.1	27.0	0.0	0.0	19.0	0.0	14.6
LnGrp LOS	B		B	B		B	C			B		B
Approach Vol, veh/h		386			409			39			455	
Approach Delay, s/veh		13.0			17.7			27.0			18.5	
Approach LOS		B			B			C			B	

Timer - Assigned Phs	2	3	4		6		8					
Phs Duration (G+Y+Rc), s	18.2	7.1	17.4		9.2		24.5					
Change Period (Y+Rc), s	4.5	4.5	4.5		4.5		4.5					
Max Green Setting (Gmax), s	20.0	5.0	18.0		19.0		27.5					
Max Q Clear Time (g_c+I1), s	10.9	3.2	7.9		4.2		10.0					
Green Ext Time (p_c), s	1.9	0.0	1.5		0.1		1.9					

Intersection Summary	
HCM 7th Control Delay, s/veh	16.8
HCM 7th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	318	151	88	285	86	57
Future Volume (vph)	318	151	88	285	86	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)	30			30	25	
Link Distance (ft)	443			231	410	
Travel Time (s)	10.1			5.3	11.2	
Confl. Peds. (#/hr)		72	72		3	97
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%
Parking (#/hr)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Sign Control	Stop			Stop	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	14.8
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	318	151	88	285	86	57
Future Vol, veh/h	318	151	88	285	86	57
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	342	162	95	306	92	61
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	16.2	14.5	10.9
HCM LOS	C	B	B

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	60%	0%	24%
Vol Thru, %	0%	68%	76%
Vol Right, %	40%	32%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	143	469	373
LT Vol	86	0	88
Through Vol	0	318	285
RT Vol	57	151	0
Lane Flow Rate	154	504	401
Geometry Grp	1	1	1
Degree of Util (X)	0.252	0.651	0.565
Departure Headway (Hd)	5.903	4.75	5.074
Convergence, Y/N	Yes	Yes	Yes
Cap	610	767	714
Service Time	3.92	2.75	3.074
HCM Lane V/C Ratio	0.252	0.657	0.562
HCM Control Delay, s/veh	10.9	16.2	14.5
HCM Lane LOS	B	C	B
HCM 95th-tile Q	1	4.9	3.6

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	10	200	12	120	230	20
Future Volume (vph)	10	200	12	120	230	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	7%			4%	-6%	
Link Speed (mph)	25			25	25	
Link Distance (ft)	685			313	410	
Travel Time (s)	18.7			8.5	11.2	
Confl. Peds. (#/hr)	3	5	15			15
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%
Parking (#/hr)			0	0		
Shared Lane Traffic (%)						
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	200	12	120	230	20
Future Vol, veh/h	10	200	12	120	230	20
Conflicting Peds, #/hr	3	5	15	0	0	15
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	7	-	-	4	-6	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	11	227	14	136	261	23

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	454	293	299	0	-	0
Stage 1	288	-	-	-	-	-
Stage 2	167	-	-	-	-	-
Critical Hdwy	7.81	6.91	4.11	-	-	-
Critical Hdwy Stg 1	6.81	-	-	-	-	-
Critical Hdwy Stg 2	6.81	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.209	-	-	-
Pot Cap-1 Maneuver	474	707	1268	-	-	-
Stage 1	683	-	-	-	-	-
Stage 2	811	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	455	694	1250	-	-	-
Mov Cap-2 Maneuver	455	-	-	-	-	-
Stage 1	665	-	-	-	-	-
Stage 2	799	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	9.18	0.72	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	164	-	677	-	-
HCM Lane V/C Ratio	0.011	-	0.352	-	-
HCM Control Delay (s/veh)	7.9	0	13.2	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	1.6	-	-

Lane Group	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Volume (vph)	8	4	6	219	4	2	25
Future Volume (vph)	8	4	6	219	4	2	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Grade (%)	9%				-9%	0%	
Link Speed (mph)	25				25	25	
Link Distance (ft)	138				277	685	
Travel Time (s)	3.8				7.6	18.7	
Confl. Peds. (#/hr)		29		29			
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)							
Sign Control	Stop				Stop	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	9
Intersection LOS	A

Movement	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Vol, veh/h	8	4	6	219	4	2	25
Future Vol, veh/h	8	4	6	219	4	2	25
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles, %	0	0	0	0	0	0	0
Mvmt Flow	10	5	8	281	5	3	32
Number of Lanes	1	0	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	7.1	9.3	7.2
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	7%	0%	98%
Vol Thru, %	0%	67%	2%
Vol Right, %	93%	33%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	27	12	229
LT Vol	2	0	225
Through Vol	0	8	4
RT Vol	25	4	0
Lane Flow Rate	35	15	294
Geometry Grp	1	1	1
Degree of Util (X)	0.039	0.017	0.34
Departure Headway (Hd)	4.05	3.981	4.17
Convergence, Y/N	Yes	Yes	Yes
Cap	889	886	863
Service Time	2.05	2.065	2.188
HCM Lane V/C Ratio	0.039	0.017	0.341
HCM Control Delay, s/veh	7.2	7.1	9.3
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.1	0.1	1.5

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	394	10	26	274	23	10	6	20	6	3	17
Future Volume (vph)	35	394	10	26	274	23	10	6	20	6	3	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			3%			15%			-13%	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		287			665			301			290	
Travel Time (s)		6.5			15.1			8.2			7.9	
Confl. Peds. (#/hr)	13		28	28		13	6		51	51		6
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	0%	0%	0%	4%	4%	4%
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	35	394	10	26	274	23	10	6	20	6	3	17
Future Vol, veh/h	35	394	10	26	274	23	10	6	20	6	3	17
Conflicting Peds, #/hr	13	0	28	28	0	13	6	0	51	51	0	6
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	3	-	-	15	-	-	-13	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	1	1	1	0	0	0	4	4	4
Mvmt Flow	40	448	11	30	311	26	11	7	23	7	3	19

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	351	0	0	487	0	0	939	971	532	978	963	343
Stage 1	-	-	-	-	-	-	561	561	-	397	397	-
Stage 2	-	-	-	-	-	-	378	410	-	582	567	-
Critical Hdwy	4.12	-	-	4.11	-	-	10.1	9.5	7.7	4.54	3.94	4.94
Critical Hdwy Stg 1	-	-	-	-	-	-	9.1	8.5	-	3.54	2.94	-
Critical Hdwy Stg 2	-	-	-	-	-	-	9.1	8.5	-	3.54	2.94	-
Follow-up Hdwy	2.218	-	-	2.209	-	-	3.5	4	3.3	3.536	4.036	3.336
Pot Cap-1 Maneuver	1208	-	-	1081	-	-	113	114	441	461	508	786
Stage 1	-	-	-	-	-	-	323	322	-	832	799	-
Stage 2	-	-	-	-	-	-	473	426	-	754	759	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1193	-	-	1052	-	-	97	101	409	354	451	772
Mov Cap-2 Maneuver	-	-	-	-	-	-	97	101	-	354	451	-
Stage 1	-	-	-	-	-	-	300	299	-	793	762	-
Stage 2	-	-	-	-	-	-	440	406	-	633	705	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.65	0.69	32.7	11.66
HCM LOS			D	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	170	143	-	-	143	-	-	570
HCM Lane V/C Ratio	0.24	0.033	-	-	0.028	-	-	0.052
HCM Control Delay (s/veh)	32.7	8.1	0	-	8.5	0	-	11.7
HCM Lane LOS	D	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.9	0.1	-	-	0.1	-	-	0.2

Lane Group	EBL	EBT	WBT	WBR	NBT	SBT	SBR
Lane Group Flow (vph)	57	393	285	192	95	470	58
v/c Ratio	0.20	0.69	0.67	0.41	0.34	0.76	0.09
Control Delay (s/veh)	18.8	25.6	34.8	7.7	27.2	35.4	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	18.8	25.6	34.8	7.7	27.2	35.4	0.3
Queue Length 50th (ft)	15	117	110	0	35	191	0
Queue Length 95th (ft)	44	245	#242	51	76	#423	0
Internal Link Dist (ft)		585	363		126	388	
Turn Bay Length (ft)	130			200			
Base Capacity (vph)	285	813	527	528	501	642	636
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.48	0.54	0.36	0.19	0.73	0.09

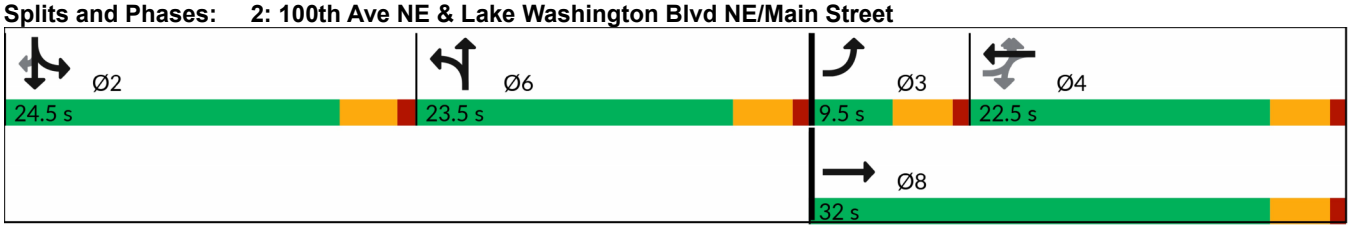
Intersection Summary

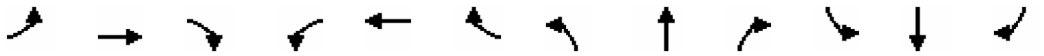
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	245	121	29	236	179	33	46	10	266	171	54
Future Volume (vph)	53	245	121	29	236	179	33	46	10	266	171	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		4%			0%			12%			-8%	
Storage Length (ft)	130		0	0		200	0		0	175		0
Storage Lanes	1		0	0		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		665			443			206			468	
Travel Time (s)		15.1			10.1			5.6			12.8	
Confl. Peds. (#/hr)	36		15	15		36	9		22	22		9
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	0%	0%	0%	1%	1%	1%
Parking (#/hr)						0	0	0	0			
Shared Lane Traffic (%)												
Turn Type	D.P+P	NA		Perm	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	3	8			4		6	6		2	2	
Permitted Phases	4			4		4						2
Detector Phase	3	8		4	4	4	6	6		2	2	2
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	9.5	25.5		22.5	22.5	22.5	23.5	23.5		23.5	23.5	23.5
Total Split (s)	9.5	32.0		22.5	22.5	22.5	23.5	23.5		24.5	24.5	24.5
Total Split (%)	11.9%	40.0%		28.1%	28.1%	28.1%	29.4%	29.4%		30.6%	30.6%	30.6%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0			0.0	0.0
Total Lost Time (s)	4.5	4.5			4.5	4.5		4.5			4.5	4.5
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Recall Mode	None	Min		Min	Min	Min	None	None		None	None	None

Intersection Summary	
Area Type:	Other
Cycle Length: 80	
Actuated Cycle Length: 64.4	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	

Splits and Phases: 2: 100th Ave NE & Lake Washington Blvd NE/Main Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	245	121	29	236	179	33	46	10	266	171	54
Future Volume (veh/h)	53	245	121	29	236	179	33	46	10	266	171	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.97		0.95	0.96		0.93	1.00		0.92	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1776	1776	1776	1885	1885	1885	1052	1052	1052	2200	2200	2200
Adj Flow Rate, veh/h	57	263	130	31	254	192	35	49	11	286	184	58
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	1	1	1	0	0	0	1	1	1
Cap, veh/h	291	401	198	90	404	320	48	68	15	352	227	485
Arrive On Green	0.05	0.36	0.36	0.24	0.24	0.24	0.15	0.15	0.15	0.27	0.27	0.27
Sat Flow, veh/h	1692	1101	544	105	1680	1330	332	465	104	1299	836	1789
Grp Volume(v), veh/h	57	0	393	285	0	192	95	0	0	470	0	58
Grp Sat Flow(s),veh/h/ln	1692	0	1645	1785	0	1330	901	0	0	2135	0	1789
Q Serve(g_s), s	1.5	0.0	12.3	2.1	0.0	7.9	6.2	0.0	0.0	12.7	0.0	1.5
Cycle Q Clear(g_c), s	1.5	0.0	12.3	8.6	0.0	7.9	6.2	0.0	0.0	12.7	0.0	1.5
Prop In Lane	1.00		0.33	0.11		1.00	0.37		0.12	0.61		1.00
Lane Grp Cap(c), veh/h	291	0	599	494	0	320	131	0	0	579	0	485
V/C Ratio(X)	0.20	0.00	0.66	0.58	0.00	0.60	0.73	0.00	0.00	0.81	0.00	0.12
Avail Cap(c_a), veh/h	343	0	734	582	0	389	278	0	0	693	0	580
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.7	0.0	16.4	20.9	0.0	20.8	25.2	0.0	0.0	21.0	0.0	16.9
Incr Delay (d2), s/veh	0.3	0.0	1.5	1.1	0.0	1.8	7.4	0.0	0.0	6.2	0.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	4.4	3.5	0.0	2.4	1.5	0.0	0.0	6.9	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	17.0	0.0	17.9	22.0	0.0	22.6	32.6	0.0	0.0	27.2	0.0	17.0
LnGrp LOS	B		B	C		C	C			C		B
Approach Vol, veh/h		450			477			95			528	
Approach Delay, s/veh		17.8			22.2			32.6			26.0	
Approach LOS		B			C			C			C	

Timer - Assigned Phs	2	3	4	6	8
Phs Duration (G+Y+Rc), s	21.2	7.6	19.3	13.5	26.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	20.0	5.0	18.0	19.0	27.5
Max Q Clear Time (g_c+I1), s	14.7	3.5	10.6	8.2	14.3
Green Ext Time (p_c), s	1.6	0.0	1.5	0.3	2.1

Intersection Summary	
HCM 7th Control Delay, s/veh	22.9
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	351	167	99	338	95	82
Future Volume (vph)	351	167	99	338	95	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)	30			30	25	
Link Distance (ft)	443			231	410	
Travel Time (s)	10.1			5.3	11.2	
Confl. Peds. (#/hr)		72	72		3	97
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%
Parking (#/hr)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Sign Control	Stop			Stop	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	20
Intersection LOS	C

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	351	167	99	338	95	82
Future Vol, veh/h	351	167	99	338	95	82
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	377	180	106	363	102	88
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	23.1	19.6	12.2
HCM LOS	C	C	B

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	54%	0%	23%
Vol Thru, %	0%	68%	77%
Vol Right, %	46%	32%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	177	518	437
LT Vol	95	0	99
Through Vol	0	351	338
RT Vol	82	167	0
Lane Flow Rate	190	557	470
Geometry Grp	1	1	1
Degree of Util (X)	0.327	0.774	0.694
Departure Headway (Hd)	6.187	5.001	5.318
Convergence, Y/N	Yes	Yes	Yes
Cap	579	724	677
Service Time	4.243	3.041	3.36
HCM Lane V/C Ratio	0.328	0.769	0.694
HCM Control Delay, s/veh	12.2	23.1	19.6
HCM Lane LOS	B	C	C
HCM 95th-tile Q	1.4	7.5	5.6

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	30	223	13	132	254	24
Future Volume (vph)	30	223	13	132	254	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	7%			4%	-6%	
Link Speed (mph)	25			25	25	
Link Distance (ft)	685			313	410	
Travel Time (s)	18.7			8.5	11.2	
Confl. Peds. (#/hr)	3	5	15			15
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%
Parking (#/hr)			0	0		
Shared Lane Traffic (%)						
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	30	223	13	132	254	24
Future Vol, veh/h	30	223	13	132	254	24
Conflicting Peds, #/hr	3	5	15	0	0	15
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	7	-	-	4	-6	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	34	253	15	150	289	27

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	500	322	331	0	-	0
Stage 1	317	-	-	-	-	-
Stage 2	183	-	-	-	-	-
Critical Hdwy	7.81	6.91	4.11	-	-	-
Critical Hdwy Stg 1	6.81	-	-	-	-	-
Critical Hdwy Stg 2	6.81	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.209	-	-	-
Pot Cap-1 Maneuver	438	677	1234	-	-	-
Stage 1	654	-	-	-	-	-
Stage 2	793	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	420	664	1217	-	-	-
Mov Cap-2 Maneuver	420	-	-	-	-	-
Stage 1	637	-	-	-	-	-
Stage 2	782	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	15.68	0.72	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	161	-	621	-	-
HCM Lane V/C Ratio	0.012	-	0.463	-	-
HCM Control Delay (s/veh)	8	0	15.7	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	2.4	-	-

Lane Group	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Volume (vph)	9	4	7	263	4	2	28
Future Volume (vph)	9	4	7	263	4	2	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Grade (%)	9%				-9%	0%	
Link Speed (mph)	25				25	25	
Link Distance (ft)	138				277	685	
Travel Time (s)	3.8				7.6	18.7	
Confl. Peds. (#/hr)		29		29			
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)							
Sign Control	Stop				Stop	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	9.7
Intersection LOS	A

Movement	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Vol, veh/h	9	4	7	263	4	2	28
Future Vol, veh/h	9	4	7	263	4	2	28
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles, %	0	0	0	0	0	0	0
Mvmt Flow	12	5	9	337	5	3	36
Number of Lanes	1	0	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	7.2	10.1	7.4
HCM LOS	A	B	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	7%	0%	99%
Vol Thru, %	0%	69%	1%
Vol Right, %	93%	31%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	30	13	274
LT Vol	2	0	270
Through Vol	0	9	4
RT Vol	28	4	0
Lane Flow Rate	38	17	351
Geometry Grp	1	1	1
Degree of Util (X)	0.045	0.019	0.408
Departure Headway (Hd)	4.178	4.151	4.177
Convergence, Y/N	Yes	Yes	Yes
Cap	862	867	861
Service Time	2.178	2.151	2.202
HCM Lane V/C Ratio	0.044	0.02	0.408
HCM Control Delay, s/veh	7.4	7.2	10.1
HCM Lane LOS	A	A	B
HCM 95th-tile Q	0.1	0.1	2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	394	10	26	275	23	10	6	20	6	3	17
Future Volume (vph)	35	394	10	26	275	23	10	6	20	6	3	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			3%			15%			-13%	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		287			665			301			290	
Travel Time (s)		6.5			15.1			8.2			7.9	
Confl. Peds. (#/hr)	13		28	28		13	6		51	51		6
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	0%	0%	0%	4%	4%	4%
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

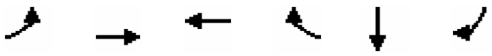
Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	35	394	10	26	275	23	10	6	20	6	3	17
Future Vol, veh/h	35	394	10	26	275	23	10	6	20	6	3	17
Conflicting Peds, #/hr	13	0	28	28	0	13	6	0	51	51	0	6
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	3	-	-	15	-	-	-13	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	1	1	1	0	0	0	4	4	4
Mvmt Flow	40	448	11	30	313	26	11	7	23	7	3	19

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	352	0	0	487	0	0	940	972	532	979	964	345
Stage 1	-	-	-	-	-	-	561	561	-	398	398	-
Stage 2	-	-	-	-	-	-	379	411	-	582	567	-
Critical Hdwy	4.12	-	-	4.11	-	-	10.1	9.5	7.7	4.54	3.94	4.94
Critical Hdwy Stg 1	-	-	-	-	-	-	9.1	8.5	-	3.54	2.94	-
Critical Hdwy Stg 2	-	-	-	-	-	-	9.1	8.5	-	3.54	2.94	-
Follow-up Hdwy	2.218	-	-	2.209	-	-	3.5	4	3.3	3.536	4.036	3.336
Pot Cap-1 Maneuver	1207	-	-	1081	-	-	112	113	441	461	508	786
Stage 1	-	-	-	-	-	-	323	322	-	832	799	-
Stage 2	-	-	-	-	-	-	471	425	-	754	759	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1192	-	-	1052	-	-	97	100	409	353	450	771
Mov Cap-2 Maneuver	-	-	-	-	-	-	97	100	-	353	450	-
Stage 1	-	-	-	-	-	-	300	299	-	793	762	-
Stage 2	-	-	-	-	-	-	439	405	-	633	705	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.65	0.68	32.77	11.67
HCM LOS			D	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	170	143	-	-	142	-	-	569
HCM Lane V/C Ratio	0.241	0.033	-	-	0.028	-	-	0.052
HCM Control Delay (s/veh)	32.8	8.1	0	-	8.5	0	-	11.7
HCM Lane LOS	D	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.9	0.1	-	-	0.1	-	-	0.2



Lane Group	EBL	EBT	WBT	WBR	SBT	SBR
Lane Group Flow (vph)	57	393	321	242	470	58
v/c Ratio	0.19	0.64	0.69	0.46	0.68	0.09
Control Delay (s/veh)	17.2	21.8	33.4	7.4	29.4	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	17.2	21.8	33.4	7.4	29.4	0.2
Queue Length 50th (ft)	9	73	89	0	128	0
Queue Length 95th (ft)	44	245	#285	57	#423	0
Internal Link Dist (ft)		585	363		388	
Turn Bay Length (ft)	130			200		
Base Capacity (vph)	295	901	593	600	715	691
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.44	0.54	0.40	0.66	0.08

Intersection Summary

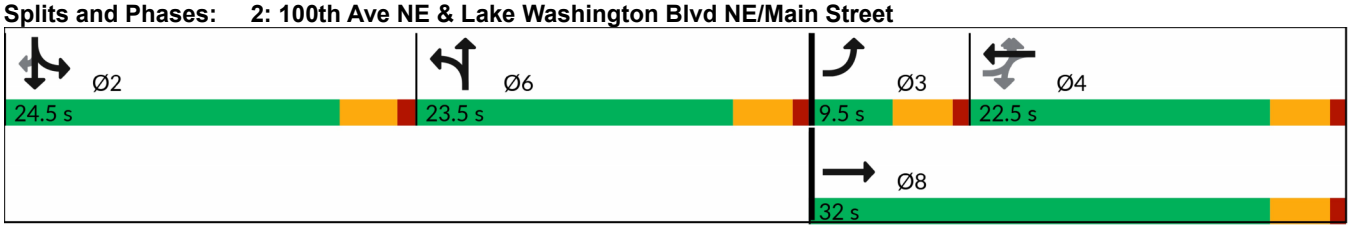
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

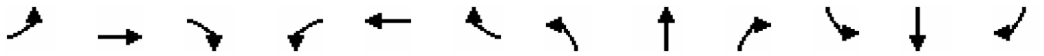
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	245	121	29	270	225	0	0	0	266	171	54
Future Volume (vph)	53	245	121	29	270	225	0	0	0	266	171	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		4%			0%			12%			-8%	
Storage Length (ft)	130		0	0		200	0		0	175		0
Storage Lanes	1		0	0		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		665			443			206			468	
Travel Time (s)		15.1			10.1			5.6			12.8	
Confl. Peds. (#/hr)	36		15	15		36	9		22	22		9
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	0%	0%	0%	1%	1%	1%
Parking (#/hr)						0	0	0	0			
Shared Lane Traffic (%)												
Turn Type	D.P+P	NA		Perm	NA	Perm				Split	NA	Perm
Protected Phases	3	8			4		6	6		2	2	
Permitted Phases	4			4		4						2
Detector Phase	3	8		4	4	4	6	6		2	2	2
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	9.5	25.5		22.5	22.5	22.5	23.5	23.5		23.5	23.5	23.5
Total Split (s)	9.5	32.0		22.5	22.5	22.5	23.5	23.5		24.5	24.5	24.5
Total Split (%)	11.9%	40.0%		28.1%	28.1%	28.1%	29.4%	29.4%		30.6%	30.6%	30.6%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0			0.0	0.0
Total Lost Time (s)	4.5	4.5			4.5	4.5		4.5			4.5	4.5
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Recall Mode	None	Min		Min	Min	Min	None	None		None	None	None

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 58.8
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 2: 100th Ave NE & Lake Washington Blvd NE/Main Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	245	121	29	270	225	0	0	0	266	171	54
Future Volume (veh/h)	53	245	121	29	270	225	0	0	0	266	171	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.98		0.96	0.97		0.94	1.00		1.00	0.97		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.90	1.00	0.90	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1776	1776	1776	1885	1885	1885	1052	1052	1052	2200	2200	2200
Adj Flow Rate, veh/h	57	263	130	31	290	242	0	0	0	286	184	58
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	1	1	1	0	0	0	1	1	1
Cap, veh/h	401	521	257	118	530	417	0	2	0	404	260	572
Arrive On Green	0.06	0.47	0.47	0.31	0.31	0.31	0.00	0.00	0.00	0.32	0.32	0.32
Sat Flow, veh/h	1692	1106	547	84	1722	1354	0	947	0	1271	818	1800
Grp Volume(v), veh/h	57	0	393	321	0	242	0	0	0	470	0	58
Grp Sat Flow(s),veh/h/ln	1692	0	1652	1805	0	1354	0	947	0	2088	0	1800
Q Serve(g_s), s	0.9	0.0	7.0	0.0	0.0	6.4	0.0	0.0	0.0	8.5	0.0	1.0
Cycle Q Clear(g_c), s	0.9	0.0	7.0	6.1	0.0	6.4	0.0	0.0	0.0	8.5	0.0	1.0
Prop In Lane	1.00		0.33	0.10		1.00	0.00		0.00	0.61		1.00
Lane Grp Cap(c), veh/h	401	0	778	649	0	417	0	2	0	664	0	572
V/C Ratio(X)	0.14	0.00	0.50	0.49	0.00	0.58	0.00	0.00	0.00	0.71	0.00	0.10
Avail Cap(c_a), veh/h	501	0	1064	845	0	571	0	421	0	979	0	843
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	9.4	0.0	7.8	12.3	0.0	12.4	0.0	0.0	0.0	12.8	0.0	10.3
Incr Delay (d2), s/veh	0.2	0.0	0.5	0.6	0.0	1.3	0.0	0.0	0.0	1.4	0.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	1.9	2.2	0.0	1.7	0.0	0.0	0.0	3.5	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	9.5	0.0	8.3	12.9	0.0	13.7	0.0	0.0	0.0	14.2	0.0	10.3
LnGrp LOS	A		A	B		B				B		B
Approach Vol, veh/h		450			563			0			528	
Approach Delay, s/veh		8.5			13.3			0.0			13.8	
Approach LOS		A			B						B	

Timer - Assigned Phs	2	3	4		6		8					
Phs Duration (G+Y+Rc), s	18.1	7.0	17.7		0.0		24.6					
Change Period (Y+Rc), s	4.5	4.5	4.5		4.5		4.5					
Max Green Setting (Gmax), s	20.0	5.0	18.0		19.0		27.5					
Max Q Clear Time (g_c+I1), s	10.5	2.9	8.4		0.0		9.0					
Green Ext Time (p_c), s	2.4	0.0	2.1		0.0		2.4					

Intersection Summary	
HCM 7th Control Delay, s/veh	12.0
HCM 7th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	344	167	99	338	175	91
Future Volume (vph)	344	167	99	338	175	91
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)	30			30	25	
Link Distance (ft)	443			231	410	
Travel Time (s)	10.1			5.3	11.2	
Confl. Peds. (#/hr)		72	72		3	97
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%
Parking (#/hr)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Sign Control	Stop			Stop	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	24.8
Intersection LOS	C

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	344	167	99	338	175	91
Future Vol, veh/h	344	167	99	338	175	91
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	370	180	106	363	188	98
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	29.6	24.4	16.1
HCM LOS	D	C	C

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	66%	0%	23%
Vol Thru, %	0%	67%	77%
Vol Right, %	34%	33%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	266	511	437
LT Vol	175	0	99
Through Vol	0	344	338
RT Vol	91	167	0
Lane Flow Rate	286	549	470
Geometry Grp	1	1	1
Degree of Util (X)	0.51	0.83	0.752
Departure Headway (Hd)	6.418	5.437	5.761
Convergence, Y/N	Yes	Yes	Yes
Cap	558	659	625
Service Time	4.505	3.513	3.841
HCM Lane V/C Ratio	0.513	0.833	0.752
HCM Control Delay, s/veh	16.1	29.6	24.4
HCM Lane LOS	C	D	C
HCM 95th-tile Q	2.9	8.9	6.7

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	119	223	13	132	254	24
Future Volume (vph)	119	223	13	132	254	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	7%			4%	-6%	
Link Speed (mph)	25			25	25	
Link Distance (ft)	685			313	410	
Travel Time (s)	18.7			8.5	11.2	
Confl. Peds. (#/hr)	3	5	15			15
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%
Parking (#/hr)			0	0		
Shared Lane Traffic (%)						
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	11.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	119	223	13	132	254	24
Future Vol, veh/h	119	223	13	132	254	24
Conflicting Peds, #/hr	3	5	15	0	0	15
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	7	-	-	4	-6	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	135	253	15	150	289	27

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	500	322	331	0	-	0
Stage 1	317	-	-	-	-	-
Stage 2	183	-	-	-	-	-
Critical Hdwy	7.81	6.91	4.11	-	-	-
Critical Hdwy Stg 1	6.81	-	-	-	-	-
Critical Hdwy Stg 2	6.81	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.209	-	-	-
Pot Cap-1 Maneuver	438	677	1234	-	-	-
Stage 1	654	-	-	-	-	-
Stage 2	793	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	420	664	1217	-	-	-
Mov Cap-2 Maneuver	420	-	-	-	-	-
Stage 1	637	-	-	-	-	-
Stage 2	782	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	25.49	0.72	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	161	-	553	-	-
HCM Lane V/C Ratio	0.012	-	0.703	-	-
HCM Control Delay (s/veh)	8	0	25.5	-	-
HCM Lane LOS	A	A	D	-	-
HCM 95th %tile Q(veh)	0	-	5.6	-	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	0	13	343	4	2	0
Future Volume (vph)	0	13	343	4	2	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	9%			-9%	0%	
Link Speed (mph)	25			25	25	
Link Distance (ft)	138			277	685	
Travel Time (s)	3.8			7.6	18.7	
Confl. Peds. (#/hr)		29	29			
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Shared Lane Traffic (%)						
Sign Control	Stop			Stop	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Intersection Delay, s/veh	11.1
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	13	343	4	2	0
Future Vol, veh/h	0	13	343	4	2	0
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	17	440	5	3	0
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	6.8	11.3	8.1
HCM LOS	A	B	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	100%	0%	99%
Vol Thru, %	0%	0%	1%
Vol Right, %	0%	100%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	2	13	347
LT Vol	2	0	343
Through Vol	0	0	4
RT Vol	0	13	0
Lane Flow Rate	3	17	445
Geometry Grp	1	1	1
Degree of Util (X)	0.004	0.017	0.508
Departure Headway (Hd)	5.121	3.631	4.114
Convergence, Y/N	Yes	Yes	Yes
Cap	703	966	881
Service Time	3.121	1.729	2.12
HCM Lane V/C Ratio	0.004	0.018	0.505
HCM Control Delay, s/veh	8.1	6.8	11.3
HCM Lane LOS	A	A	B
HCM 95th-tile Q	0	0.1	2.9

TOOLE DESIGN

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SUITE 2020
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BASIS OF DESIGN MEMORANDUM

January 14, 2025

To: Kevin McDonald, AICP
Organization: City of Bellevue
From: Kristen Lohse, ASLA; Jakob Ward, PE
Project: Meydenbauer Bay Park Phase II

Introduction

The purpose of this Basis of Design memorandum is to identify relevant design criteria and standards that were used during the development of the recommendations for the streetscape elements of the Meydenbauer Bay Park Expansion Project (Phase II). This includes the following streets and intersections:

- Lake Washington Blvd, from Rondeau Pillar Bridge to 100th Ave NE
- 100th Ave SE through Meydenbauer Bay Park

The Toole Design team reviewed the following documents to identify the design criteria:

- Bellevue Transportation Design Manual Standards and Drawings (2024)
- Bellevue Complete Streets Manual (2024)
- Bellevue Downtown Mobility Study (2023)
    - Provides guidance on Exceptional Intersections
- Bellevue Comprehensive Plan (2024)
- AASHTO's Guide for the Development of Bicycle Facilities (Bike Guide)
- U.S. Access Board Proposed Public Rights-of-Way Accessibility Guidelines (PROWAG)
- U.S. Department of Transportation Federal Highway Administration (FHWA) Manual on Uniform Traffic Control Devices (MUTCD) and Interim Approvals (IA)

Other reference documents:

- Bike Bellevue Bike Facility Concepts (2024)
- Meydenbauer Bay Park and Land Use Plan (2010)
- Bellevue Curb Management Plan (2023)
- Bellevue Mobility Implementation Plans (2022)
- Bellevue MMLOS Metrics, Standards, & Guidelines (2017)
- Bellevue Grand Connection Framework Plan (2018)

Design Criteria

The following tables provide key design criteria identified:

Lake Washington Boulevard Roadway Design Criteria

	Source	Standard	Design Criteria
Roadway Classification	Bellevue Comprehensive Plan	Map TR-2	Collector Arterial
Posted Speed	n/a	n/a	30 mph
Vehicle Lane Width	Bellevue Transportation Design Manual	Table 3-7	11’-12’ typical
Control Vehicle	Bellevue Transportation Design Manual	Section 3.1.3	Fire truck (ladder)
Driveways	Bellevue Standard Plans	SW-160-1	Option 3 preferred
Curb Ramps	Bellevue Standard Plans	SW-200-1 through SW-260-1	Type TBD
Bicycle Lane Width	Bellevue Complete Streets Design Manual	Striped Bike Lane	6’ typical (5’ min)
Landscape Strip Width	Bellevue Transportation Design Manual	Section 3.4.1.6	5’ typical (4’ min for tree pit)
Sidewalk Width	Bellevue Transportation Design Manual	Section 3.4.1.1	6’ typical (5’ min)

100th Ave SE Roadway Design Criteria

	Source	Standard	Design Criteria
Roadway Classification	n/a	n/a	Park Lane
Lane Width	Bellevue Transportation Design Manual	Table 3-7	10’
Street Grade	Bellevue Transportation Design Manual	Section 3.2.4.2	15% maximum
Control Vehicle	Bellevue Transportation Design Manual	Section 3.1.3	Fire truck (ladder)
Emergency Access	Fire Department staff	n/a	Maintain southbound vehicle access
Raised Crossings/Intersections	Bellevue Standard Plans	DT-150-1	12’ approach ramp, 3” height typical

Lake Washington Boulevard Alternative Concepts

Conceptual designs were developed for several alternatives to improve bicycling facilities on Lake Washington Boulevard. These alternatives included:

Option 1: Shared Use Path from Rondeau Pillar Bridge to 100th Ave NE, Raised Intersection at 100th Ave NE

Option 2: Shared Use Path from Rondeau Pillar Bridge to 100th Ave NE, Raised Crossings at 100th Ave NE

Option 3: Continuation of Bike Lanes from 99th Ave NE to 100th Ave NE, Raised Intersection at 100th Ave NE

Option 4: Continuation of Bike Lanes from 99th Ave NE to 100th Ave NE, Raised Crossings at 100th Ave NE

These conceptual designs are included in Appendix A.

Sincerely,

Kristen Lohse, ASLA | Principal Urban Designer

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Appendix A: Lake Washington Boulevard Alternative Concepts

THIS IS A PRELIMINARY CONCEPT. FIELD VERIFICATION, SITE CONDITION ASSESSMENTS, ENGINEERING ANALYSIS AND DESIGN ARE NECESSARY PRIOR TO IMPLEMENTING ANY OF THE RECOMMENDATIONS CONTAINED HEREIN.

OPTION 1 - 10' SHARED USE PATH WITH EXCEPTIONAL INTERSECTION (DECORATIVE WITH 14' WIDE CROSSWALKS)

LWB - PARK FRONTAGE

00166.00 Meydenbauer Bay Park
12/10/2024

PRELIMINARY CONCEPT - NOT FOR CONSTRUCTION

TOOLE DESIGN

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THIS IS A PRELIMINARY CONCEPT. FIELD VERIFICATION, SITE CONDITION ASSESSMENTS, ENGINEERING ANALYSIS AND DESIGN ARE NECESSARY PRIOR TO IMPLEMENTING ANY OF THE RECOMMENDATIONS CONTAINED HEREIN.

OPTION 2 - 10' SHARED USED PATH WITH RAISED CROSSWALK

LWB - PARK FRONTAGE

00166.00 Meydenbauer Bay Park
12/10/2024

PRELIMINARY CONCEPT - NOT FOR CONSTRUCTION

TOOLE DESIGN

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THIS IS A PRELIMINARY CONCEPT. FIELD VERIFICATION, SITE CONDITION ASSESSMENTS, ENGINEERING ANALYSIS AND DESIGN ARE NECESSARY PRIOR TO IMPLEMENTING ANY OF THE RECOMMENDATIONS CONTAINED HEREIN.

OPTION 3 - SIDEWALKS AND BIKE LANES WITH EXCEPTIONAL INTERSECTION (RAISED WITH 14' WIDE CROSSWALKS)

LWB - PARK FRONTAGE

00166.00 Meydenbauer Bay Park
12/10/2024

PRELIMINARY CONCEPT - NOT FOR CONSTRUCTION

TOOLE DESIGN

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THIS IS A PRELIMINARY CONCEPT. FIELD VERIFICATION, SITE CONDITION ASSESSMENTS, ENGINEERING ANALYSIS AND DESIGN ARE NECESSARY PRIOR TO IMPLEMENTING ANY OF THE RECOMMENDATIONS CONTAINED HEREIN.

OPTION 4 - SIDEWALKS AND BIKE LANES WITH RAISED CROSSWALK

LWB - PARK FRONTAGE

00166.00 Meydenbauer Bay Park
12/10/2024

PRELIMINARY CONCEPT - NOT FOR CONSTRUCTION

TOOLE DESIGN

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January 10, 2025

Meydenbauer Bay Park Phase 2: Basis of Design – Architectural Narrative

KITE SITE

Existing Demolition

The site currently houses five multi-family residential buildings that appear to be wood framed construction with concrete foundation walls and slab on grade.

- Perform a demolition assessment to determine what materials can be salvaged for reuse.
- Demolition or deconstruction of existing multi-family residential buildings.
- Crush existing concrete slabs and foundations for use as underlayment on site.
- Salvage wood framing members for use on or off-site.

On-site Parking

Parking levels consist of sloped slabs on grade with retaining walls where necessary to support the adjacent site topography. Two two-way curb cuts from 100th Ave NE will be required.

- Parking
  - Sloped concrete slabs on grade.
  - Cast-in-place concrete retaining walls in lieu of shotcrete to reduce embodied carbon.
  - Allow for increased concrete cure times to reduce cement content and embodied carbon.
  - 8’-6” wide double striped parking stalls.

Elevated Walkways

The sloped walkways will provide accessible access through the Kite Site from Main St. to the Shoreline Promenade while allowing for on-grade vehicular circulation and parking below.

- Walkway Structure
  - Concrete columns, precast concrete girders, and cast-in-place concrete deck.
- Guard / Cladding
  - Formed steel panel cladding guardrail, anodized finish with integral handrail.
- Planting
  - Option 1 – Extensive (low-depth) planting on elevated walkways
  - Option 2 – Intensive (deeper) planting indicated on elevated walkways. (see landscape narrative)

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Pavilion

Located along Lake WA Blvd, the Pavilion will provide enclosed gathering space, covered outdoor gathering space, and an occupied roof with extensive green roof. Minimal MEP systems are anticipated at this point as the building use has not been determined.

- Pavilion Program
  - 6,000 gsf of covered gathering space.
  - Occupancy: 400 (15 net – 200 male, 200 female)
  - (6) total low-flow, wall-hung water closets.
- Pavilion Structure
  - Structural steel framed podium with composite deck.
  - Concrete columns from parking level up to podium.
  - Allow for increased concrete cure times to reduce cement content and embodied carbon.
  - Glulam columns and beams up to pavilion roof deck. FSC-certified wood to be included as an alternate.
  - Acoustic DLT roof deck. FSC-certified wood to be included as an alternate.
- Exterior Enclosure
  - Formed metal panel soffit cladding with anodized finish below podium. Include cold form metal framing, sheathing, weather barrier, and semi-rigid insulation behind cladding.
  - Raised access floor above insulation and waterproofing over concrete podium slab.
  - (1) story aluminum storefront system with integrated garage doors on (3) sides.
  - Wood stud framed solid wall with sheathing, weather barrier, semi-rigid insulation, and wood rainscreen cladding on (1) side. FSC-certified wood to be included as an alternate.
  - Rigid insulation and rubberized asphalt waterproof roofing over deck structure.
- Occupied Roof
  - Extensive green roof over rigid insulation and drainage mat. American Hydrotech or similar. (see landscape narrative)
  - Split slab concrete walking surface over rigid insulation and drainage mat.
  - Steel mesh guardrail along perimeter of walking surface.
  - Formed steel panel facia cladding with anodized finish.
- MEP Systems
  - Plumbing and low-flow, sensor operated fixtures for restrooms and drinking fountain.
  - Electrical lighting and garage door operation at Pavilion.
  - Fire suppression sprinklers along underside of roof deck.
  - Freeze protection heating. Small electric Cadet system or similar.
- ALTERNATE: MEP Systems (if enclosed)
  - Air source heat pump.
  - Dedicated Outside Air System ventilation with distribution below raised access floor.
  - Rainwater capture system for toilet flushing to be included as an alternate.
  - Mechanical mezzanine between level P1 and Level 1.

Elevated Bridge
The bridge will extend over 100th Ave NE below to connect the Kite and Shoreline sites will providing emergency vehicle access to the Shoreline Promenade and adjacent multi-family residential building.

- Bridge Structure
  - Cast-in-place concrete deck over steel girders and concrete columns.
- Guardrail / Cladding
  - Formed steel panel cladding guardrail, anodized finish with integral handrail.

Shoreline Elevator
The free-standing exterior elevator, located south of the Kite Site, will provide accessible access from the Elevated Bridge to the Shoreline Promenade.

- Elevator Structure
  - Structural steel framing with braced and moment connections.
- Exterior Enclosure
  - Glazed aluminum storefront system on (2) sides. Kawneer Trifab 451 or similar.
  - Metal stud framed solid wall with formed steel panel rainscreen cladding on (2) sides.
  - TPO Membrane roofing over corrugated metal roof deck.
- Elevator Equipment
  - Machine room-less traction elevator. Kone Monospace DX or similar.
  - (2) stops with 20+ ft of vertical travel distance.
  - Glazed elevator cab.

Shoreline Stair
The exterior stair, located south of the Kite Site, will provide access from the Elevated Bridge to the Shoreline Promenade.

- Stair Structure
  - Structural steel framing
  - Precast concrete treads
- Guardrail
  - Formed steel panel cladding guardrail, anodized finish with integral handrail.

MEMO

Date:	January 15, 2025
To:	Andy Mitton, Stephanie Woirol
From:	Andy Bennett
Subject:	Meydenbauer Bay Park, Phase II, Marina Reconfiguration

The Bellevue Marina currently consists of three piers for monthly moorage and 14 additional day moorage slips between Pier 2 and Pier 3. Under the original Meydenbauer Bay Park and Land Use Plan, Pier 1 would be slightly reconfigured, Piers 2 and 3 would be eliminated, and the day moorage would be provided along a long floating dock roughly parallel to shore.

The guiding principles for the marina from the 2010 Plan included retaining some leased moorage, provide public access, restore shoreline, and improve boating safety while retaining financial viability. In the development of a revised concept for the marina arrangement, the following goals were also considered:

1. Retain at least fourteen day moorage slips for vessels up to 26 feet in length to comply with the Aquatic Lands Enhancement Grant that was used to construct the existing facility.
2. Comply with current environmental and shoreline development codes and regulations.
3. Stay within Navigation Line, as determined by the Washington Department of Natural Resources.
4. Minimize overwater shading in shallow water, particularly along shoreline where salmonids spawn and migrate.
5. Reduce the total overwater coverage
6. Improve views from the shoreline.
7. Improve access to open water for human-powered watercraft departing from the current rental facility on Pier 1.

The 2010 Plan recommends 38-48 monthly moorage slips; the 2024 proposal provides 31 rentable slips (see discussion on the Marina for more information) and the required 14 day moorage slips.

Existing Conditions

Pier 1

Pier 1 is a timber pier with 16 monthly moorage slips, including two very large yacht slips at the end of the pier. All monthly moorage slips have power and potable water connections. The pier also supports the Whaling Building, which currently houses a seasonal kayak and paddleboard rental service. Much of the existing structure at Pier 1 is in good condition, having been reconstructed to repair damage suffered during an extreme snow and rain event in the 1990's that sank several floating marinas in the region.

Pier 2

Pier 2 consists of floating concrete docks for fifteen 30', thirteen 40', and one 90' monthly moorage slips, all of which have power and potable water connections. A fixed metal roof supported by steel columns covers all but four mid-pier slips and the 90' slip at the end of the pier. The current Pier 2 structure was built after the snow and rain event in the 1990's sank the previous Pier 2 and it is in good condition.

Pier 3

Pier 3 is a timber pier that has been modified extensively since its original construction and many structural elements do not comply with current access, safety, or structural codes. Some of the slips are covered. Pier 2 includes a few covered slip accessed via the bulkhead but the water in these slips is very shallow, limiting their use to small boats, less than 20' in length. The pier and roof structures are currently in fair to poor condition.

Day Moorage

The current day moorage piers, located between Pier 2 and Pier 3, were reconstructed and expanded in 2014 to comply with the conditions of an Aquatic Lands Enhancement Account grant that was used to purchase some of the property developed in Phase 1. The timber piers are supported on timbers piles and were designed with a 20-year service life, with the expectation that new day moorage would be provided in the long term as part of Phase 2 of the park development. The day moorage piers are currently in good condition.

Alternatives and Concept Discussion

Navigation Line

The navigation line defines the waterward limit for pier or docks and is defined by the Department of Natural Resources. Within Meydenbauer Bay, the line is not well defined but in conversations with DNR staff, it was recommended that any new or relocated piers stay within the footprint of the existing piers. At the start of the design phase, additional discussions with DNR staff will be required to define the location of the Navigation Line and it will need to be added to the site survey plan.

Nearshore Zone

When the existing bulkhead is removed and the shoreline regraded to create viable habitat for salmonid spawning and migration, the overwater shading created by the marina piers along that stretch of shoreline should limited where the water is less than 10 feet deep at OLW. Where piers or floats are located beyond this zone, access will be provided by gangways using an ADA-compliant grating with at least a 60% open area.

Alternatives

Several alternatives were developed that maximized monthly moorage, minimized overwater coverage, optimized views from shore, and explored various combinations of existing, new, and reconfigured fixed and floating structures. In addition to the goals listed above, the following were considered and evaluated for each alternative:

- Permitting
- Ecology
- On-shore open water experience
- Visitor access to Main Street
- Public space intuitive wayfinding
- Ease of observation for park rangers/staff
- Security for monthly moorage slips
- Access from parking to the monthly moorage slips
- Loading and unloading access to the monthly moorage slips

- Water depth for both navigation and avoiding critical habitat
- Navigation clearance between piers, including the Bellevue Yacht Club piers to the southeast
- Potential for conflict between kayakers/paddleboarders using the rental facility on Pier 1 and marina users

Recommendations

Revised Pier 1

The recommended reconfiguration of Pier 1 provides water access for the small craft rentals on the offshore side of the Whaling Building, with a new launching float. All but the two largest monthly moorage slips at the end of the pier are eliminated, with a security gate at the end of the main pier. This reduces interactions between boaters and paddlers, providing safer access to the waters of Meydenbauer Bay. On the south side of the pier, the monthly moorage slips are replaced by the required day moorage slips, with the access route going past a potential ranger station for security. This arrangement consolidates all of the public pier access in one location.

Pier 2

The existing Pier 2 steel and timber fixed roof will be demolished to substantially reduce the total overwater coverage of the marina. Some of the existing mooring floats, which are in good condition, will be moved to the approximate location of Pier 3. By eliminating the fixed roof and moving the floats, the center of the marina will be open water, improving views from the shoreline, allowing the removal of the existing timber bulkhead, and providing opportunities for both shoreline and in-water habitat improvements. The removal of the fixed roof will provide environmental mitigation for other in-water improvements recommended elsewhere on the site.

Pier 3

The existing day moorage slips will be demolished and new monthly moorage provided by a combination of re-used and new floating docks. No cover will be provided for any of the monthly moorage slips. The new Pier 3 floating docks will be located further offshore in deeper water with access provided by an accessible grated gangway spanning the high-value shallow water habitat zone.

Parking

All of the current marina tenant parking would be eliminated with a few ADA and short-term parking spaces provided near Pier 1 to allow access and provisioning of vessels using the legacy large yacht slips. In place of the removed parking lots, a pedestrian path would be provided, designed to allow emergency vehicle access when required. Long-term parking for tenants of the new Pier 3 will be provided in the garage at the Kite Site, with a limited number of short-term and ADA spaces near the head of the new gangway.

Meydenbauer Bay Park Cultural Resources Report, Bellevue, King County, Washington

Submitted to:
City of Bellevue

Submitted by:
Historical Research Associates, Inc.
Lauren Waldroop, MHP
Madeline Hagan, MS
Linda McNulty Perez, PhD

HRA Seattle
December 2024

Historical Research Associates, Inc.

This project was implemented by HRA Principal Investigators Linda McNulty Perez, PhD, and Lauren Waldroop, MHP, who meet the Secretary of the Interior's professional qualifications standards for archaeology and architectural history, respectively. This report is intended for the exclusive use of the Client and its representatives. It contains professional conclusions and recommendations concerning the potential for project-related impacts to cultural resources based on the results of HRA's investigation. It should not be considered to constitute project clearance regarding the treatment of cultural resources or permission to proceed with the project described in lieu of review by the appropriate reviewing or permitting agency. This report should be submitted to the appropriate state and local review agencies for their comments prior to the commencement of the project.

Executive Summary

The City of Bellevue (the City) seeks to complete Phase 2 of their Meydenbauer Bay Park Project (the Project). The Project proposes to complete additional development of Meydenbauer Bay Park including the Bellevue Marina Pier 1 in compliance with the Meydenbauer Bay Park and Land Use Plan, completed in 2010. The project area of this cultural resources review includes generally the park and specifically, parcel 4389200370, inclusive of Piers 1 and 2. The park is located in the city of Bellevue on the eastern bank of Lake Washington within King County, Washington.

The City contracted the Berger Partnership, P.S. (Berger), to complete landscape architectural design services in connection with the development of Phase 2 of park development. Berger contracted with Historical Research Associates, Inc. (HRA), to conduct cultural resources reviews, including an archaeological desktop review and built-environment survey and inventory, for the project area, parcel 4389200370.

The report is being prepared to help inform project design and is intended to provide data and recommendations to support project planning. No regulatory nexus has yet been identified, and no effects assessment is possible at this stage. As such, the report is intended for the sole use of the City and cannot meet all requirements of state and federal regulations related to cultural resources review and compliance.

HRA identified four built-environment resources within the project area constructed in 1979 or earlier: the Whaling Building, the Ice House (former Garage), and Meydenbauer Bay Marina, Piers 1 and 2. One of these resources, the Whaling Building (Property ID 672621), was determined eligible for listing in the National Register of Historic Places (NRHP) in 2013 as part of the Project's Phase 1 development. Because the documentation of the whaling building was over 10 years old, HRA updated the documentation and conducted research to evaluate whether the building remained NRHP eligible. HRA concurs with the previous determination and recommends specifically that the whaling building meets Criteria A and C in the areas of Industry and Architecture, respectively. The NRHP-eligible resource's boundary is assumed to be the footprint of the building. Its period of significance dates to 1928, when it was constructed, through 1956, when the property was converted for private use by Schupp/William Lagen. The remaining three resources identified as part of this study are recommended not eligible for listing in the NRHP, and by extension, local and state registers of historic places, due to an irretrievable loss of integrity. If HRA's recommendations result in a determination that the ice house and piers do not qualify for listing in local, state, or national registers of historic places, these resources do not qualify as historic properties under state and federal regulations. Therefore, the Project has no potential to adversely affect them.

Based on HRA's understanding of the Project, there are two possible alternatives for the ice house (former garage): the rehabilitation and reuse of the building or demolition of the building. Additionally, the Project will alter pedestrian and vehicular traffic immediately adjacent to the whaling building and ice house in an effort to create more intuitive paths between the marina and Meydenbauer Bay Park. HRA recommends the whaling building remains NRHP eligible and that project actions would impact the area around the building but not the building itself. As the building's integrity of setting has already been altered and is not considered a character-defining feature, HRA recommends the Project will not adversely affect the whaling building. As no other

historic properties are present, the Project does not have the potential to adversely affect historic properties.

Additionally, HRA identified no documented archaeological resources within the project area. Although the project area has been classified as High Risk to Very High Risk for the identification of archaeological sites, previous cultural resources reporting has demonstrated a significant history of disturbance along Meydenbauer Bay that lessens the likelihood of encountering intact archaeological resources in those previously disturbed areas. However, HRA's background research indicates that undisturbed or less-disturbed areas of shoreline may retain native sediments. As such, HRA recommends that the Project avoid ground-disturbing activity along areas of the shoreline without a history of disturbance. If such activity cannot be avoided, archaeological monitoring may be recommended.

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1 Introduction

The City of Bellevue (the City) seeks to complete Phase 2 of their Meydenbauer Bay Park Project (the Project). The Project proposes to complete additional development of Meydenbauer Bay Park and the adjacent Bellevue Marina Pier 1 in compliance with the Meydenbauer Bay Park and Land Use Plan, completed in 2010. The project area, presumed to be the park including parcel 4389200370, inclusive of Piers 1 and 2, is located in the city of Bellevue on the eastern bank of Lake Washington within King County, Washington.

The City contracted the Berger Partnership, P.S. (Berger), to complete landscape architectural services in connection with the development or construction of Phase 2 of the Project. Berger contracted with Historical Research Associates, Inc. (HRA), to conduct cultural resources services, including an archaeological desktop review and built-environment survey and inventory, for Phase 2 of the Project. The following report is the result of HRA's investigations.

The purpose of Phase 2 of the Project is to continue the work of the 2010 Meydenbauer Bay Park and Land Use Plan (PLUP) and build off the success of the implemented Phase 1 park portion of the Project. The focus of this phase of work is to create a plan for expanded public spaces adjacent to 99th Ave. SE, the Meydenbauer Bay Marina, and 100th Ave. SE, and to create enhanced connections between downtown, the waterfront, and the completed phase 1 development of Meydenbauer Bay Park. Creating more intuitive paths of travel between the marina shore and the park, an area that is currently constricted and relatively uninviting to pedestrians, is critical to the success of the Project. This connection will require embracing and evolving the existing ice house (former garage), whaling building, and surrounding area.

1.1 Regulatory Nexus

The report is being prepared ahead of project design. No regulatory nexus or federal lead agency has yet been identified.

1.2 Project Area

The Project is located at 2 99th Ave. NW in Bellevue, King County, Washington, in Section 31 of Township 25 North, Range 5 East. The project area includes 2.54 acres of non-federal public lands, marina piers, and water owned by the City (Figure 1-1 and Figure 1-2).

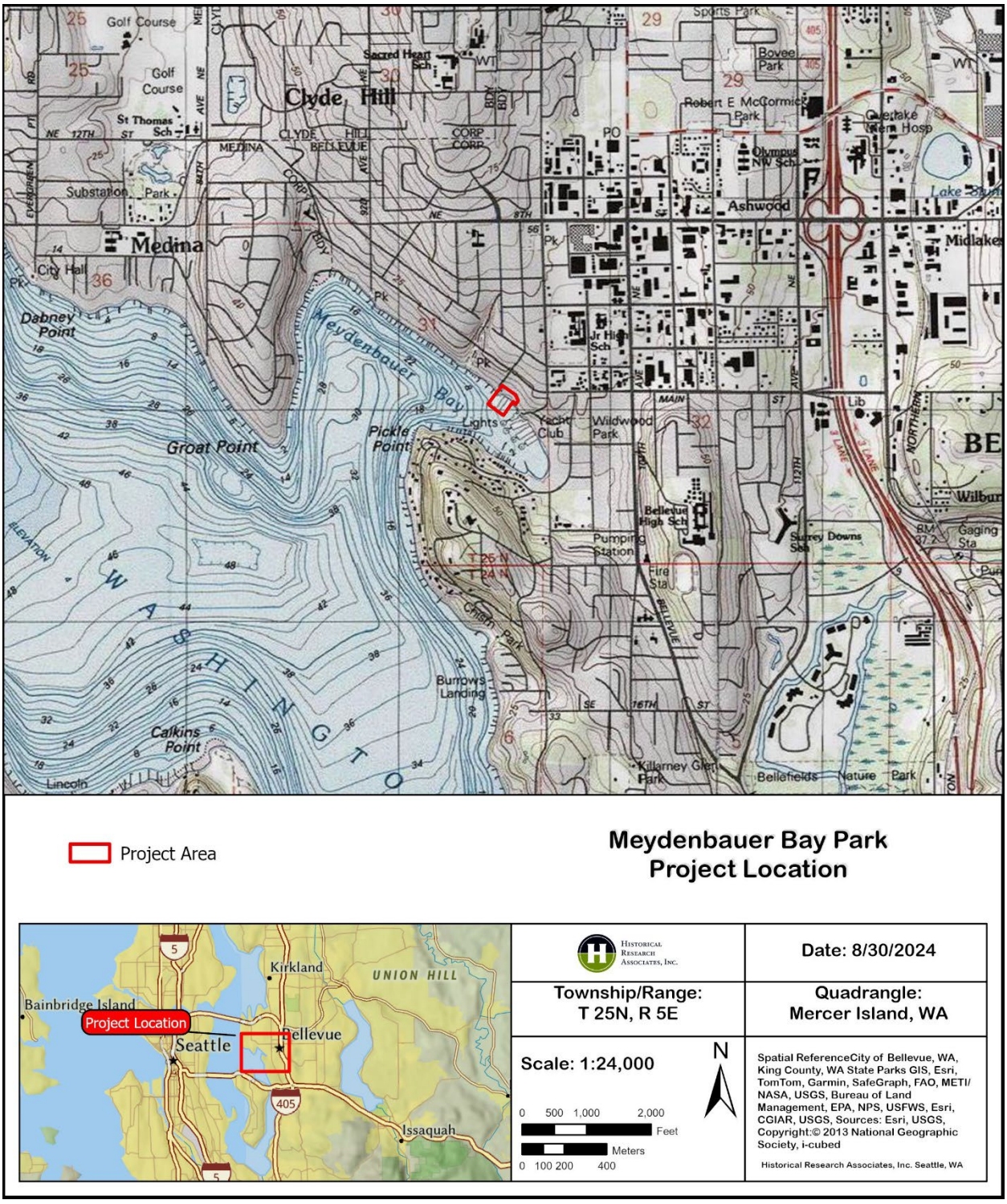

Figure 1-1. Topographical map of the project area.

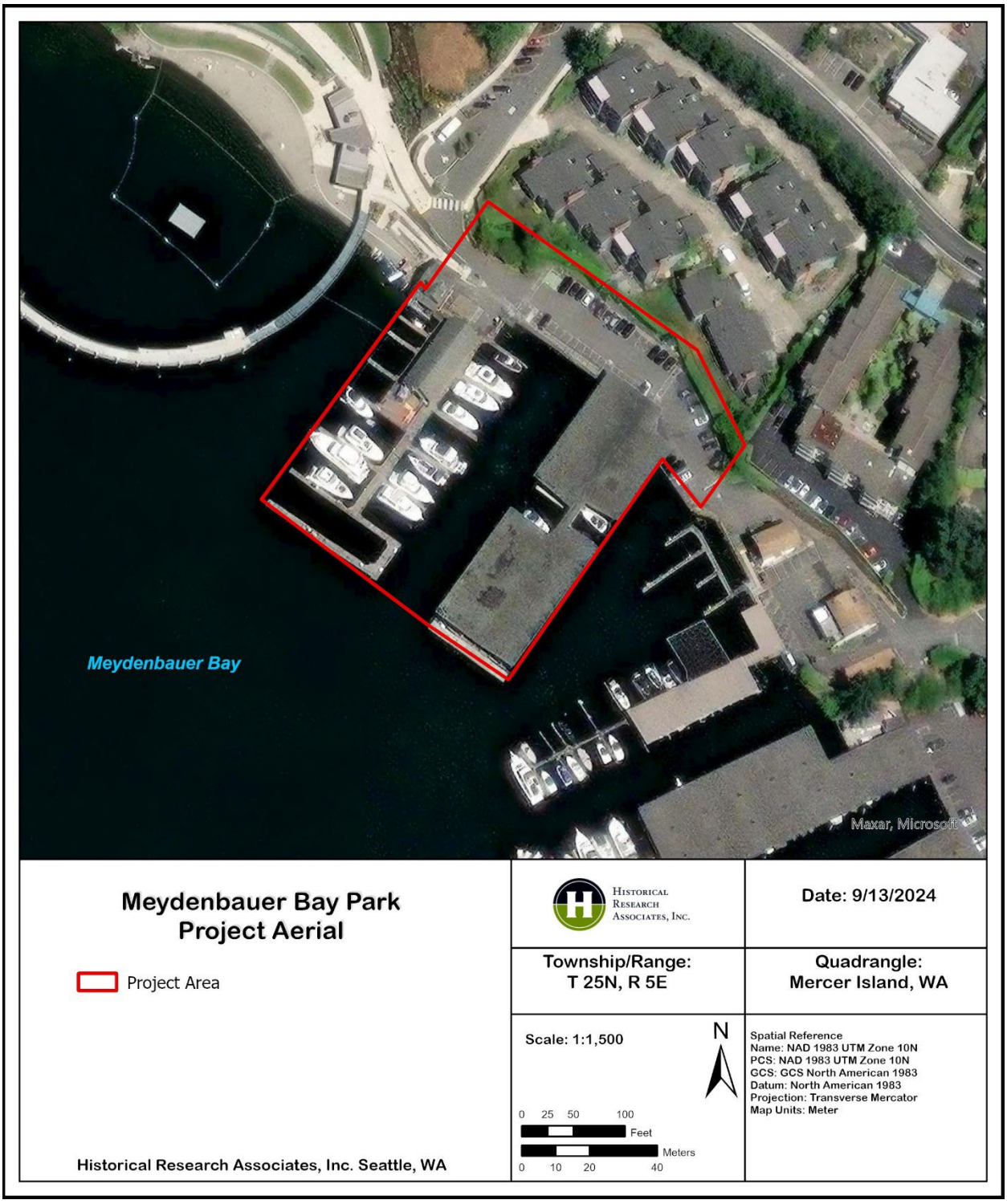

Figure 1-2. Aerial map of the project area.

2 Methods

2.1 Archaeology Desktop Review

HRA archaeologist Linda McNulty Perez, PhD, conducted an archival record search for the Project using a research radius of 1 mile (mi). She reviewed the Washington Department of Archaeology and Historic Preservation's (DAHP's) Washington Information System for Architectural and Archaeological Records Data (WISAARD) database for archaeological site records, cultural resources survey reports, historic register information, and cemetery records. McNulty Perez also reviewed the statewide archaeological predictive model on WISAARD for probability estimates for encountering archaeological resources within the project area. Additionally, HRA architectural historian, Lauren Waldroop, MHP, reviewed WISAARD for built-environment resources within 0.25 mi of the project area that were either listed in or eligible for listing in the NRHP.

HRA staff also searched HRA's in-house library for information on the environmental, archaeological, and historical context of the project area and vicinity. They reviewed ethnographic sources (e.g., Burke Museum of Natural History and Culture 2016; Hilbert et al. 2001) for information regarding placenames, burials, and land-use practices.

2.2 Built-Environment Survey

HRA architectural historian Lauren Waldroop conducted background research, field investigations, evaluations, and assessments of built-environment resources within the project area. Waldroop meets the Secretary of the Interior's (SOI) Professional Qualifications Standards in Architectural History (36 CFR Part 61).

Prior to survey, HRA used several methods to identify historic-period (45 years old or older) built-environment resources within the project area. These included a review of WISAARD for previously surveyed or recorded historic-period built-environment resources, a review of county tax assessor records, a review of historic-period (GLO, Sanborn, Metzker, USGS) maps, review of National Park Service (NPS) records, and others.

HRA surveyed properties aged 45 years old or older that were identified during background research or during the field survey, including previously surveyed historic-period, built-environment resources whose documentation was 10 years old or older and including complexes of more than one building, structure, or object, as updated Washington State Standards for Cultural Resources Reporting require one inventory form per resource within a complex (DAHP 2023). Waldroop reviewed resources at a reconnaissance level as viewed from the public right-of-way (ROW) and reviewed the interior of the whaling building. Waldroop photographed historic-period built-environment resources, authored descriptions, and composed NRHP evaluations, assessing potential NRHP eligibility under Criteria A–D (NPS 1997).

As requested by the City, HRA then prepared an analysis of the Project's potential to affect historic properties. As no regulatory nexus has been identified for the Project, these recommendations are preliminary.

2.3 National Register of Historic Places

HRA evaluates resources using the following guidelines established by the NPS. To be individually eligible for listing in the NRHP, a property must be significant within a historic context. To evaluate significance, the following five things must be determined:

1. The facet of prehistory or history of the local area, state, or nation that the property represents;
2. Whether the facet of history is significant;
3. Whether it is a type of property that has relevance and importance in illustrating the historic context;
4. How the property illustrates that history; and
5. Whether the property possesses the physical features necessary to convey the aspect of history with which it is associated (NPS 1997:44).

The significance (items 1–3 above) of a resource must be established before assessing integrity (items 4 and 5). The significance of a resource within its historic context must relate to one or more of the following:

A. Under Criterion A, properties can be determined eligible for listing in the NRHP if they are associated with events that have made a significant contribution to the broad patterns of our history.

B. Under Criterion B, properties can be determined eligible for listing in the NRHP if they are associated with the lives of persons significant in our past (i.e., persons whose activities are demonstrably important within a local, state, or national context).

C. Under Criterion C, properties can be determined eligible for listing in the NRHP if they embody the distinctive characteristics of a type, period, or method of construction, or represent the works of a master, or possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction (i.e., are part of a district). Discrete features, a particular building for example, may best be documented under this Criterion, though collections of resources may also have significance under Criterion C for architecture or engineering association.

D. Under Criterion D, properties may be eligible for listing in the NRHP if they have yielded, or may be likely to yield, information important in history. To be eligible under Criterion D, the property must have, or have had, information to contribute to our understanding of human history and that information must be considered "important." Most commonly applied to archaeological sites, buildings, structures, and objects may be eligible under Criterion D if they are the principal source of information (NPS 1997:21).

Integrity is the ability of a property to convey its significance. To be eligible for the NRHP, a property must not only be shown to be significant under NRHP criteria (A–D above), but it must also have integrity. The evaluation of integrity is grounded in an understanding of a property's physical features and how they relate to its significance. Historic properties either retain integrity (that is, convey their significance) or they do not. To retain integrity, a property will always possess several, and usually most, of the seven aspects of integrity, which are:

- Location. Location is the place where the historic property was constructed or the place where the historic event occurred.
- Design. Design is the combination of elements that create the form, plan, space, structure, and style of a property.
- Setting. Setting is the physical environment of a historic property.
- Materials. Materials are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property.
- Workmanship. Workmanship is the physical evidence of crafts of a particular culture or people during any given period in history or prehistory.
- Feeling. Feeling is the property's expression of the aesthetic or historic sense of a particular period of time.
- Association. Association is the direct link between an important historic event or person and a historic property (NPS 1997:44–45).

3 Background Research

3.1 Previous Cultural Resources Investigation

There have been six cultural resources investigations conducted within 1 mi of the project area since 1995 (Table 3-1).

Of these six studies, three were pedestrian surveys. The Washington Department of Transportation (WSDOT) conducted a 2005 pedestrian survey approximately 0.92 mi northeast of the project area in advance of construction of a bridge over I-405. One historic-period structure, built in 1953, was inventoried during the survey; it was determined to be ineligible for listing in the NRHP (WSDOT 2005). In 2010, archaeologists conducted a pedestrian survey approximately 0.78 mi southeast of the project area as part of Verizon's construction of a new cellular tower. No cultural resources were identified during that survey (Stipe 2010). Lastly, a 2014 pedestrian survey was conducted approximately 0.45 mi north of the project area in preparation for the construction of a telecommunications facility. No cultural resources were identified during the course of the survey (Poole and Amell 2014).

Subsurface testing has been conducted within 1 mi of the project area during the course of three cultural resources investigations since 1995. In 2012, two shovel probes were placed approximately 0.66 mi southwest of the project area during a cultural resources investigation in support of a shoreline restoration and construction project along Lake Washington at Meydenbauer Bay. No cultural resources were identified (Kelly 2012). Additionally, a cultural resource investigation was conducted approximately 100 feet (ft) west of the project area in 2015, during the earliest phase of work conducted by the City on Meydenbauer Bay Park. At that time, archaeologists conducted a pedestrian survey, placed two shovel probes, and monitored the excavation of six geotechnical test pits; no cultural resources were observed (Bundy 2015).

The greatest amount of subsurface testing conducted as part of investigations within 1 mi of the project area was done in support of the Eastlink Light Rail Transit Project in 2016. Archaeologists placed shovel probes, auger probes, and mechanical trenches throughout 21 testing areas between the Overlake Transit Center in Bellevue and the International District light rail station in Seattle, Washington. The Eastlink investigations were approximately 0.91 mi southeast of the project area at their nearest point, and no cultural resources were observed within 1 mi of the project area during the phase of the Eastlink Light Rail Transit Project that was captured in 2016 reporting (Hoyt et al. 2016).

Table 3-1. Previous Cultural Resources Investigations within 1 mi of the Project Area.

Distance and Direction from Project Area	**Year**	**Title**	**Author**	**Resources w/in 1 mi of Project Area**	**Study Type**	**NADB Number**
0.92 mi northeast	2005	*I-405, NE 10th Overcrossing Project – Historic, Archaeological, and Cultural Resources Technical Report*	WSDOT	One historic-period structure built in 1953	Pedestrian survey	1346848

Table 3-1. Previous Cultural Resources Investigations within 1 mi of the Project Area.

Distance and Direction from Project Area	Year	Title	Author	Resources w/in 1 mi of Project Area	Study Type	NADB Number
0.78 mi southeast	2010	*Verizon Wireless SEA Bellevue Alt. 1 Cellular Tower – Cultural Resources Review*	Frank T. Stipe	None	Pedestrian survey	1354444
0.66 mi southwest	2012	*Results of an Archaeological Assessment of the Proposed Construction Project at 8925 Groat Point Drive in Medina, King County, Washington*	Katherine M. Kelly	None	Pedestrian survey, subsurface testing	1683424
0.45 mi north	2014	*Cultural Resources Assessment for the Proposed AT&T Mobility Project: SB1750 West Bellevue Square Mall, King County, Washington*	David Poole and Sarah Amell	None	Pedestrian survey	1684951
109 ft west	2015	*Cultural Resources Assessment, Meydenbauer Bay Park Phase 1*	Barbara E. Bundy	None	Built-environment survey, pedestrian survey, subsurface testing, monitoring of geotechnical testing	1687395
0.91 mi southeast	2016	*Eastlink Light Rail Transit Project Archaeological Resources Preconstruction Testing Results Construction Contracts E320, E335, E340, E360 (Revised)*	Bryan Hoyt et al.	None	Subsurface testing	1693578

3.2 Previously Recorded Archaeological Sites

There is one previously recorded archaeological site within 1 mi of the project area (Table 3-2). Site 45KI1301 is a historic-period debris concentration that was identified during construction for the Sound Transit East Link Project in 2016, approximately 0.8 mi east of the project area. The site consisted of a 3 by 3 ft pit with a depth of 2.4 ft that was filled with domestic debris and wood matter, including milled lumber and wood chips. The domestic debris was predominantly composed of ceramic tableware and glass bottles, as well as other artifacts related to food production and consumption such as cut beef bones and canning jars. Other domestic items representing a wider range of activities were also present, including an ink bottle, toy gun, and leather dog collar. Based

on the composition of the site and the history of the parcel surrounding it, Hoyt and Wilson interpreted the site as a buried trash pit or the lower portion of a privy associated with a farm owned by the Matsuzawa family from approximately 1935–1950. In 2016, DAHP determined that the site was not eligible for listing in the NRHP, and the site was removed (Hoyt and Wilson 2016).

Table 3-2. Previously Recorded Archaeological Sites within 1 mi of Project Area.

Direction and Distance from Project Area	Resource No./Name	Resource Type	NRHP Status	Description	Reference
0.79 mi east	45KI1301	Historic-period debris scatter/ concentration	Determined Not Eligible	Trash pit or privy containing wood debris and domestic refuse	Hoyt and Wilson 2016

3.3 Previously Recorded Cemeteries

There is one recorded cemetery within 1 mi of the project area (Table 3-3). The Grace Lutheran Church columbarium was located approximately 0.42 mi northwest of the project area, on the grounds of the former Grace Lutheran Church in Bellevue (DAHP 2019). The church closed its doors in 2019 due to a decline in its congregation, and the columbarium was relocated elsewhere (*Seattle Times* 2019).

Additionally, human remains were recovered from the yard of a home at an approximate distance of 0.15 to 0.4 mi west of the project area in 1977. The remains are not encoded in WISAARD as a cemetery or burial, but they are mentioned in a survey report that is accessible on WISAARD. The approximate location of the remains is based on the recollections of the police officer assigned to the case in 1977 (Bundy 2015).

Table 3-3 Recorded Cemeteries within 1 mi of the Project Area.

Direction and Distance from Project Area	Resource No. / Name	Description	Reference
0.42 mi northwest	45KI1445	Grace Lutheran Church columbarium	DAHP 2019

3.4 Historic-Period Maps

The first documented survey of the land surrounding the project area is an 1871 U.S. Surveyor General (USSG) survey of the area between Lake Washington and Lake Sammamish (USSG 1871). The map depicts the inlet that would later be named Meydenbauer Bay, but no cultural features of any kind are mapped in proximity to the project area or elsewhere. A 1907 map depicts the project area along the bay, with a different spelling of "Meydenbower Bay"; the land is owned by the Bellevue Land Company (Anderson 1907). The same parcel had been acquired by Lochleven by 1912 (Kroll 1912). By 1926, a county road in approximate alignment with the present-day Lake

Washington Blvd. NE and a steam railway ran parallel to the shore of Meydenbauer Bay near the project area (Kroll 1926). A 1936 map shows that the land surrounding the bay had been subdivided and that roads, including Lake Washington Blvd. NE, had been developed throughout the area (Metsker 1936). Docks of varying sizes are represented along the bay as early as 1950 (U.S. Geological Survey [USGS] 1950). Although development has increased greatly in downtown Bellevue near the project area, no new features appear within the project area on maps through 1975 (USGS 1975).

3.5 Previously Recorded Built-Environment Resources

There are seven previously documented built-environment resources determined or recommended NRHP eligible within 0.25 mi of the project area (Table 3-4). The whaling building (Property ID 672621), located within the project area, was recorded first in 1992 as part of the American Pacific Whaling Fleet Dock and then recorded separately and determined NRHP eligible in 2013 as part of Phase 1 of the Project. Documentation was incomplete and did not record the criteria under which the building qualified for listing (Cole 2013).

Four additional resources, three of which are located outside the project area, have not yet been formally evaluated for NRHP eligibility but were recommended NRHP eligible as part of a 1992 historic buildings survey within Bellevue.

Also in 1992, the American Pacific Whaling Fleet Dock (Property ID 38610) was documented as a complex at 9905 Lake Washington Blvd. NE and included the dock (now Pier 1), main office, main pier transit shed (now whaling building), and garage (now ice house). The dock and associated resources were recommended NRHP eligible.

The two remaining previously documented built-environment resources, also located outside the project area and identified as the Forum Apartments, were recommended NRHP eligible during a 2020 effort by DAHP to record buildings associated with notable Washington architects (Borth 2020; Houser 2020).

Table 3-4. Previously Documented NRHP-Listed or -Eligible Built-Environment Resources within the Project Area.

WISAARD ID	Address	Year Built	Name	NRHP Status	Reference
672621	2 99th Ave. NE	1928	Whaling Building	Determined Eligible	Cole 2013
38605	9927 Meydenbauer Way SE	1906–1912	Meydenbauer Yacht Club	Recommended Eligible	Pendergrass and Tobin 1992a
38609	9620 Lake Washington Blvd. NE	1920	Diller House	Recommended Eligible	Pendergrass and Tobin 1992b
38610	9905 Lake Washington Blvd. NE	1930–1931	American Pacific Whaling Fleet Dock	Recommended Eligible	Tobin 1992a*

38624	10203 Main St.	1925	First Bellevue Bank	Recommended Eligible	Tobin 1992b
723299	10129 Main St.	1968	Forum Apartments	Recommended Eligible	Houser 2020
72300	10129 Main St.	1968	Forum Apartments	Recommended Eligible	Borth 2020

*The American Pacific Whaling Fleet Dock was recorded as one resource in 1992. To comply with Washington State standards, HRA has divided the complex into individual buildings, structures, and objects and evaluated each resource separately in Section 5.

3.6 DAHP Predictive Model

DAHP has generated a predictive model for the likelihood of encountering archaeological sites based on statewide information and large-scale factors. Information on geology, soils, site types, landforms, and features depicted on General Land Office (GLO) maps were used to establish or predict probabilities for archaeological resources throughout the state. The DAHP model uses five categories of prediction: Low Risk, Moderately Low Risk, Moderate Risk, High Risk, and Very High Risk. The DAHP predictive model map indicates that the project area is predicted to be of High to Very High Risk for the identification of archaeological sites.

4 Cultural Context

A discussion of the current archaeological and ethnographic knowledge of the region where the project area is located is essential to establishing a context for any archaeological materials that may be identified as the result of future studies. The context statement that follows is provided with a significant caveat; this information is based largely on the written record, from publicly available scholarly literature, ethnographic research, and documentation of archaeological resources held in DAHP's database. A thorough and thoughtful understanding of the region's cultural context should consider the voices of the peoples living here today who have ancestral ties to the area. Such information would highlight use of the area and its resources in the past, as well as the continued use by Indigenous peoples in the present day and into the future.

4.1 Indigenous History

This report adopts a culture history sequence for western Washington developed by Kopperl and colleagues (2016a) for King County. This sequence establishes five analytic periods, taking into consideration previous chronologies developed by culture historians (Ames and Maschner 1999; Butler 1961; Kidd 1964) and environmental data such as geological and paleobotanical records. Analytic Period I spans 14,000 to 12,000 years before present (B.P.); the key developments that constitute this period include the deglaciation of western Washington and the arrival in the region of flora, fauna, and highly mobile hunter-gatherers. Analytic Period II (12,000–8000 B.P.) was characterized by continued environmental change and human adaptation of land-use strategies in response. Analytic Period III (8000–5000 B.P.) saw a period of reorganized hunter-gatherer subsistence patterns as the climate approached the maritime conditions that persist to the present day. Analytic Period IV (5000–2500 B.P.) was marked by additional changes in economy and technology; this is also the period in which shell middens begin to appear. Analytic Period V covers the time between 2500 B.P. and the beginnings of non-Native colonization. This time period was one of rapid changes in social organization in response to environmental factors like the 1100 B.P. earthquake, as well as responses to colonization.

Microblades and various projectile point types have been used to argue for occupation across Washington from the late Analytic Period I onward (e.g., Kopperl et al. 2016a:93; Chatters et al. 2011; Greengo and Houston 1971). Examples include the Manis Mastodon Site (45CA218) near Sequim, approximately 52 mi northwest of the project area, which dates from roughly 13,800 B.P. and consists of the remains of a mammoth identified in a peat bog with a human-made bone point lodged in a rib fragment (Waters et al. 2011), and the *Bison antiquus* Site (45SJ454) on Orcas Island, approximately 75 mi northwest of the project area, which contains butchered bone on the well-preserved remains of an extinct species of bison that dated to 11,990 radiocarbon years B.P. (Kenady et al. 2011). Excavations at the Bear Creek Site (45KI839) in Redmond, Washington, approximately 6 mi northeast of the project area, indicate that the site was occupied between 12,670–9936 cal B.P. (Kopperl et al. 2016b:227). This site contained a diverse stone tool kit including unfluted concave base points and has been interpreted as a short-term occupation site that has yielded evidence of mammal, fish, and plant exploitation (Kopperl et al. 2010). The Manis and Bear Creek Sites demonstrate the implementation of diverse tool kits and subsistence strategies, indicating their occupants' working knowledge of the landscapes and available resources (Kopperl et al. 2016b).

Identifiable faunal remains are rare at Analytic Period II and III sites, making inferences about subsistence difficult, but mammal and fish remains, protein residues, and fire-modified rock (FMR) associated with cooking have been reported from Analytic Period II and III sites in the Puget Sound region, such as Sites 45SN28, 45SN303, 45SN48N, and 45SN49A (Chatters et al. 2011; Stilson and Chatters 1981). Analytic Period III saw the development of a wider variety of resource-acquisition strategies (Ames and Maschner 1999:67; Kopperl et al. 2016a:116).

Evidence from Analytic Period IV sites is indicative of a cultural shift toward sedentarism and changes to social organization. Analytic Period IV is also characterized by an increasing number of archaeological sites (Kopperl et al. 2016a:118). These sites indicate that marine resources also became more heavily used, and groups resided in increasingly larger settlements for longer periods of time. Larson and Lewarch's (1995) excavations at West Point (Sites 45KI428 and 45KI429), approximately 11 mi west of the project area, illustrate the cultural sequence with data that spans Analytic Period IV and Analytic Period V. From 4250 to 200 B.P., site function was not static, but there was a shift from a base camp to a resource extraction location over the approximately 5,000-year period this location was in use. The presence of personal adornment items in earlier deposits at West Point may indicate differentiation in status within groups.

Analytic Period V is well documented, and a majority of the region's known sites can be dated to this time, during which the general ethnographic pattern appears to have developed (Ames and Maschner 1999; Wessen 1988). Increased reliance on stored foods and controlled access to resources also developed during Analytic Period V. Salmon harvesting, berry processing, and even shellfish gathering require a great deal of well-developed social organization to implement on the scale of what is observed through the archaeological record (e.g., Duwamish No.1 [Campbell 1981]). Although this "pattern" is thought to have been somewhat modified by the appearance of non-Native goods and practices, it was one of collector-like settlement patterns with winter village occupations and complex social organization.

The project area is located within the traditional territory of the Lushootseed-speaking Snoqualmie Tribe of Indians, who have lived across the broader, present-day Seattle and Lake Washington region since time immemorial. They participated in a generalized Coast Salish culture, which was adapted toward the riverine and marine environment (Suttles and Lane 1990). Snoqualmie territory included lands from the confluence of the Snoqualmie and Skykomish Rivers south to Snoqualmie Falls, Lake Sammamish, and Lake Washington, as well as east to the Cascades (Snoqualmie Indian Tribe 2021). The inhabitants of villages around Lake Washington were called Xatcua'bc ("lake dwellers"), in contrast to the Sxwaldja'bc ("saltwater dwellers") living on Puget Sound (Hilbert et al. 2001:45; Suttles and Lane 1990:485–486; Swanton 1978 [1952]:26).

Riverine and terrestrial food resources constituted a majority of the diets of the Snoqualmie peoples living farther inland. Salmon was a key component of the Snoqualmie diet and culture, and several species were extensively harvested during their spawning seasons. Wood weirs and lift nets were used by Southern Coast Salish peoples to catch salmon and other fish in rivers and creeks, while terrestrial mammals, especially black-tailed deer and elk, were typically individually hunted using the bow and arrow (Suttles and Lane 1990:489). Numerous edible roots and bulbs, such as bracken, camas, and wapato, were also gathered across the region, and berries represented important local plant food resources for the Snoqualmie (Snoqualmie Indian Tribe 2024).

As with other Southern Coast Salish cultures, the Snoqualmie practiced a semi-sedentary lifestyle that made use of permanent winter villages and temporary summer encampments. Small bands

would travel along the lakes and rivers to hunt and forage for plant resources during the summer months, returning to their permanent settlements for the ceremonially rich winter season and to intensively fish in the spring and fall (Suttles and Lane 1990).

There are five Indigenous place names attested in the vicinity of the project area, all referring to geographical features around Meydenbauer Bay (all transcriptions below are Lushootseed unless otherwise specified). Čabqʷəsəbəc, or "Become Added To", was the name of a small creek near what is now Dabney Point, approximately 1.2 mi northwest of the project area. A small marsh in the same area was known as DEq^{3}tus (Waterman transcription). Groat Point, located approximately 0.68 mi west of the project area, was known as čagʷus, "By the Water". Meydenbauer Creek, located approximately 0.2 mi south of the project area, was likely known as Tlhai'^{3}si (Waterman transcription), translated by Waterman as a "certain kind of fish" that had an especially abundant run in the area. The promontory located 0.31 mi south of the project area that constitutes the southern edge of Meydenbauer Bay was known as Lcwild (Waterman transcription) (Hilbert et al. 2001:90–94).

The Snoqualmie and numerous other Indigenous groups in the Puget Sound area were signatories of the Treaty of Point Elliott in 1855. As a result of the treaty, the Snoqualmie were assigned to the Tulalip Reservation, along with other Tribes. Few upriver Snoqualmie people relocated to this downriver location, choosing to stay in their traditional lands. People choosing to remain in their traditional territory in the foothills of the Cascades continued to hunt, gather, and fish to the extent possible. Members of the community worked for and with incoming non-Native settlers, trading fish, furs, and other goods, and by taking part in emerging agriculture (e.g., hop farming) and logging activities in the Snoqualmie River Valley. An 1870 census recorded 301 Snoqualmie people living on the Tulalip Reservation, while many other Tribal members continued to inhabit their traditional territories around the Snoqualmie and Tolt Rivers (Ruby and Brown 1992:214–216).

In 1934, the superintendent of the Tulalip Agency recommended that a small reservation be set aside for those members of the Snoqualmie Indian Tribe who lived outside of the Tulalip Reservation. In the years that followed, both the Indian Service and the superintendent proposed locations where such a reservation might be established (Sweeney 2020). However, beginning in 1953, these plans were disrupted by House Concurrent Resolution 108, a bill which began what is known as the Termination Era, a practice of dissolving federal recognition of Tribes as sovereign political entities in order to render Tribal people U.S. citizens instead of citizens of Tribal nations (67 Stat. B132). The Snoqualmie lost their federal recognition in the wake of that resolution, as did many other Tribes.

The Snoqualmie Indian Tribe's federal recognition was restored in 1999. The Snoqualmie subsequently purchased 69 acres of land in Snoqualmie, Washington, to be placed into trust; this land constitutes the present Snoqualmie Reservation (Snoqualmie Indian Tribe 2020; Snoqualmie Tribe Environmental and Natural Resources Department 2022).

4.2 Other Historic-Period Developments

In 1869, William Meydenbauer of Seattle claimed land on the east side of Lake Washington just north of Mercer Island. The Meydenbauer claim and that of Aaron and Ann Mercer were the first White settlements in what is now Bellevue. Meydenbauer immigrated to the United States from Germany with his wife, Thekla Meydenbauer (née Fischer) in 1850. The Meydenbauers had lived in

Boston and California before 1869, when they arrived in Seattle and established a small bakery that turned into a successful commercial bakery in downtown Seattle (*Seattle Daily Times* 1920). Their land claim on Lake Washington included Lots 1 and 2 in Section 32 of Township 25 North, Range 5 East (Bureau of Land Management [BLM] 1875). Though the Meydenbauers never lived on their Lake Washington land claim, they erected a cabin and planted an orchard of fruit trees (Eastside Heritage Center 2006). By 1897, the bay was named in honor of the family because of their contributions to the community—namely their bakery, William's fraternal associations, and Thekla's charitable work with the Plymouth Congregational Church (Boswell 2017; *Seattle Daily Times* 1897).

After the Meydenbauers had claimed land, non-Native settlers began trickling to the east side of Lake Washington, largely from Seattle. The new arrivals logged the area and established agricultural plots—such as orchards, vegetable patches, and berry farms—taking their produce to market in Seattle. By the mid-1880s, a ferry terminal was built on the south shore of Meydenbauer Bay, connecting Bellevue growers to Seattle markets through Leschi and Madison Park. Settlement was slow until 1913, when a car ferry service was offered in 15-minute intervals from Seattle to Meydenbauer Bay. The population grew, schools and churches were established, and the town became known for its strawberries and its annual Strawberry Festival (Figure 4-1; Eastside Heritage Center 2011; BOLA Architecture + Planning 2017:E10).

Figure 4-1. Meydenbauer Bay with church, farms, and homes in the background (University of Washington 1900).

In 1917, the Lake Washington Ship Canal was constructed, which lowered the water level of Lake Washington by 9 ft. This allowed ship traffic to pass between Puget Sound and Lake Washington via Lake Union, which contributed to the industrial development of Lake Washington and its surroundings (Williams 2017). In 1919, William Schupp bought a tract of land on Meydenbauer Bay for his company, the American Pacific Whaling Company (APWC). The APWC was a large whaling

company that worked in the North Pacific off the Alaskan coast during the summer. Schupp was interested in docking his fleet of whaling boats in fresh water during the winter to avoid corrosion and set up headquarters for the company nearby (Eastside Heritage Center 2019). No whale was ever brought into Meydenbauer Bay; instead, the APWC processed whales, mostly humpback and sperm whales, at facilities off the coast of Alaska and Bay City in Gray's Harbor. Hunted whales were stored on whaling boats—also called "killer ships"—and transferred to the processing plants where they were reduced for baleen, bone, and oil. Though Schupp attempted to popularize the consumption of whale meat among White Americans, the company sold most of their product to the fertilizer and cosmetics industry (Williams 2016).

Between 1919 and 1920, the APWC constructed two buildings and a dock on Meydenbauer Bay (Figure 4-2). In 1933, Schupp purchased the nearby Wildwood Park Dance Hall and surrounding land with the intent to construct a mansion on the property (Pendergrass and Tobin 1992a). However, those plans would not come to fruition.

Some of Schupp's boats wintered in Lake Washington—notably the *Aberdeen*, *Kodiak*, *Moran*, *Patterson*, *Tanginak*, *Unimak*, and *Westport*. The ships lay idle during the winter, but they drew much fanfare in Bellevue when they left Lake Washington and when they returned. In a 1941 Works Progress Administration (WPA) guide to Washington, the author wrote that "twice a year the Bellevue wharfs are crowded with members of families, watching the departure and return of the seamen for the five-month season in the North" (WPA 1941). According to Schupp's grandson, Bill Lagen, the boat crews were majority Norwegian men who had been whalers "since the turn of the century" and were notoriously rowdy (Williams 2016). At its height, the APWC was the second largest employer on the east side of Lake Washington (Eastside Heritage Center 2019). Barring a fire that destroyed the moorings in the late 1920s, the company operated steadily until the 1940s, when the use of whale related products in the United States plummeted (Webb 2011:240).

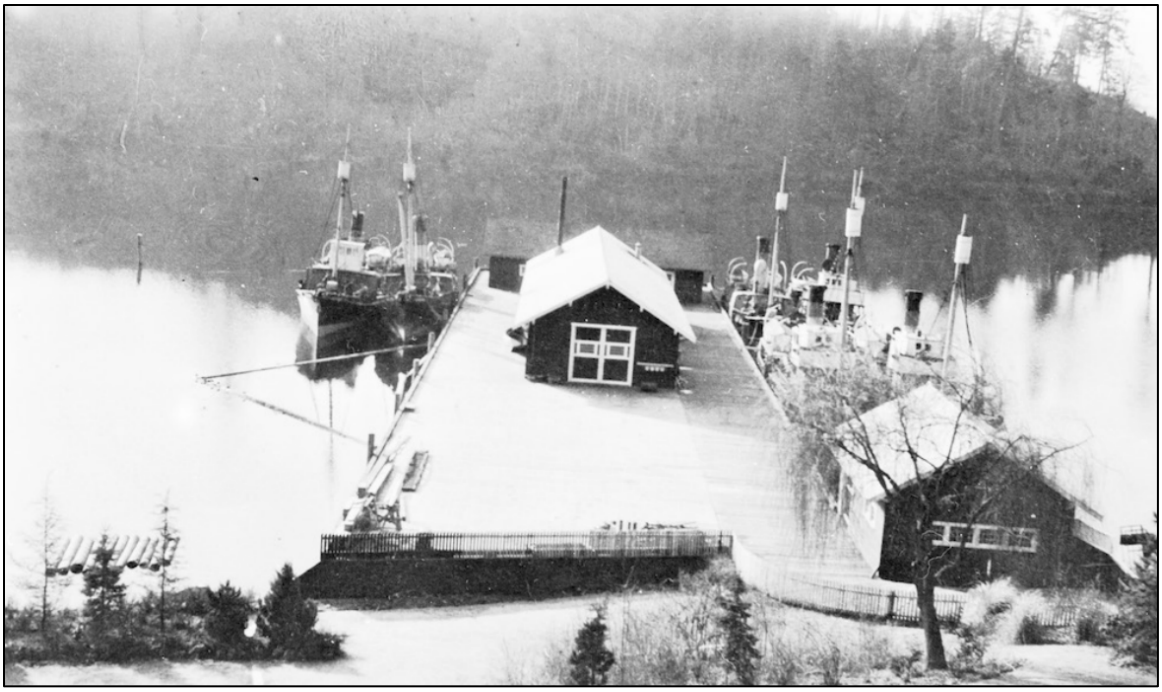

Figure 4-2. Whaling buildings, dock, and fleet on Meydenbauer Bay, ca. 1925 (Schupp and Lagen Families 1925).

In 1942, in response to World War II, the U.S. Navy cancelled the company's whaling permit, and the U.S. Coast Guard took over the ships and dock for use in the department's patrol service (*Bremerton Daily News Searchlight* 1942; Tobin 1992a). Schupp's post-war attempts at reviving his business with his son-in-law Marc Lagen were unsuccessful. The APWC, the last operating commercial whaling company in the United States, officially ceased operations in 1947 (Dupar 1989; Schumacher 2008). Schupp died of a heart attack the same year (*Olympian* 1947). As many Japanese farmers had been forced out of Bellevue during the war, the loss of the whaling company was a blow to the city's economy. Shortly after the City was incorporated in 1953, it was promoted as a quiet suburb away from bustling Seattle (Alicea 2017).

After Schupp's death in 1947, his grandson Bill Lagen and his family took ownership of Schupp's land along Meydenbauer Bay and developed the area into a recreational marina Lagen renovated the whaling company buildings and piers to serve the marina between 1956 and 1958 (City of Bellevue 2019; Mcomber 1998; Meydenbauer Bay Yacht Club 2024). The former garage, now known as the ice house, was converted into a duplex, with one unit being used as the caretaker's cottage (Schumacher 2008). In 1998, Lagen sold the pier and whaling buildings to the City for public use (Mcomber 1998).

The Meydenbauer Bay Yacht Club may have used Lagen's pier as early as 1947, when they bought the nearby Wildwood Park Dance Hall. Established in 1946, the Meydenbauer Bay Yacht Club founding members included Marc Lagen, Frank Armstead, Burt Marshall, Gilbert Skinner, Thomas Bannon, Gail Williams and Dwight Hartman. In 1952, the Meydenbauer Bay Yacht Club acquired the waterfront parcel containing the Wildwood Park Dance Hall building from Lagen, who retained the parcel containing the APWC. Due to material shortages after World War II, the club was unable to remodel the clubhouse or build a formal dock. The first boat piers constructed by the club were "primitive" and built with scrap materials, and Lagen may have allowed the club to use the APWC pier after the company ceased operations in 1947 (Meydenbauer Bay Yacht Club 2024).

Between 1961 and 1962, Omer Mithun and Associates remodeled the Wildwood Park Dance Hall for private use by the Meydenbauer Bay Yacht Club at 9927 Meydenbauer Way SE (Meydenbauer Bay Yacht Club 2024; Pendergrass and Tobin 1992a). While the Meydenbauer Bay Yacht Club is not one of the oldest in Puget Sound, it is one of the early post-World War II yacht clubs on Lake Washington. The yacht club continues to operate out of the former Wildwood Park Dance Hall (Meydenbauer Bay Yacht Club 2024).

In 2001, the City purchased a 0.6-acre waterfront plot and marina from Lagen, which was incorporated into Meydenbauer Bay Park (Lindblom 2001). The Meydenbauer Bay Park phase 1 development project renovated and expanded recreation access and officially opened the renovated park to public use in 2019. The project included the restoration of the whaling building (Anchor QEA 2020). The building is still serving the park and is occupied by REI as a kayak rental facility (REI 2024).

5 Results of Architectural Survey

HRA identified four historic-period built-environmental resources within the project area (Table 5-1; Figure 5-1). One of these resources, the Whaling Building (Property ID 672621), was determined eligible for listing in the NRHP in 2013 as part of the Project's Phase 1. Additionally, one resource, the American Pacific Whaling Fleet Dock (Property ID 38610), was recorded as a complex and recommended NRHP eligible in 1992, although no formal determination of eligibility was completed. The previous inventory for the American Pacific Whaling Fleet Dock included the dock (now Pier 1), main pier transit shed (now whaling building), garage (now ice house), and the main office (no longer extant). Because the previous inventory was over 10 years old and recorded the complex as one resource, HRA, following updated Washington State guidelines, divided the complex into separate buildings and structures and prepared new inventories for all resources. Physical descriptions and NRHP evaluations for each resource are included below.

Table 5-1. Surveyed Built-Environment Resources within the Project Area.

WISAARD ID	Address	Year Built	Name	HRA Recommendation
672621	2 99th Ave. NE	1928	Whaling Building	Previously Determined Eligible; HRA Recommends Eligible
—	2 99th Ave. NE	1928	Ice House (former Garage)	HRA Recommends Not Eligible
38610	2 99th Ave. NE	1930-31	American Pacific Whaling Fleet Dock; Meydenbauer Bay Marina, Pier 1	HRA Recommends Not Eligible
—	2 99th Ave. NE	1956–1958	Meydenbauer Bay Marina, Pier 2	HRA Recommends Not Eligible

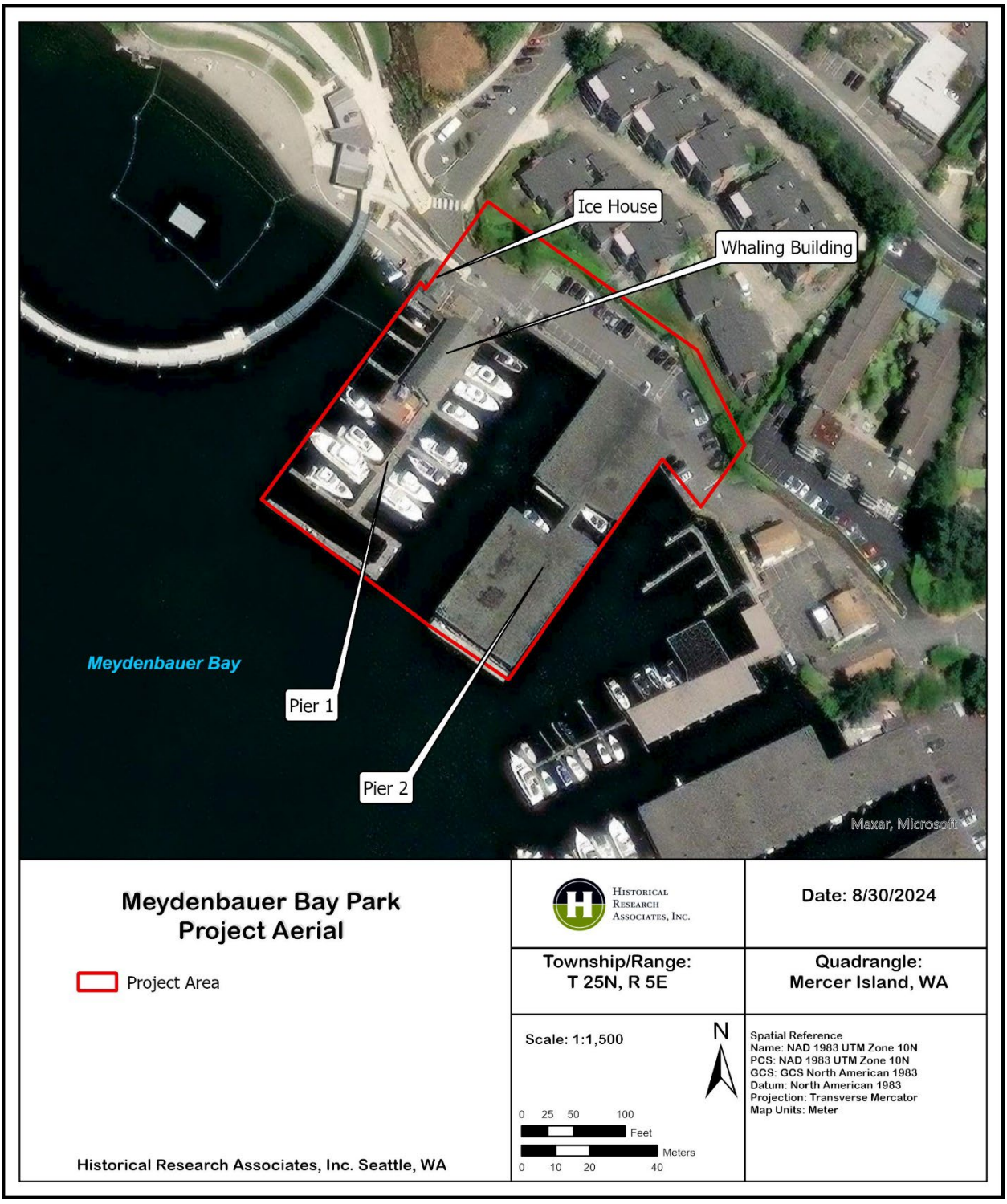

Figure 5-1. Meydenbauer Bay Park project aerial.

5.1 Whaling Building

Constructed in 1928 after a previous APWC building at the same location burned down, the whaling building at 2 99th Ave. NE was originally used as the repair shop for the APWC's fleet. The one-story, rectangular building sits on a wood dock, is clad in horizontal wood siding, and is topped by a front-gabled roof clad in asphalt shingles with stepped brackets (Figure 5-2 and Figure 5-3). The northeast-facing double-door entrance is recessed centrally on the north elevation, which also features a single wood-frame, double-hung-sash window with six divided lights, the original horizontally sliding wood doors, and a smaller set of double doors, which were used to access the upper storage loft, directly under the gable. The northwest elevation features a row of seven triple, wood-frame, double-hung-sash windows, each with six divided lights, and exposed rafter tails. The southwest elevation features a central horizontally sliding, double-door entrance flanked by paired, wood-frame, double-hung-sash windows with six divided lights. The southeast elevation mirrors the northwest, featuring seven triple, wood-frame, double-hung-sash windows, each with six divided lights, and exposed rafter tails. Signage for the REI kayak rental business is located at the north corner, with a gate providing access to the rental facilities at the southwestern end of the building. The signage supports are decorated with upright kayaks, and the signage is written across the connecting horizontal beam.

The building interior has been updated to include a small conference room and a set of bathrooms for use by the REI Co-op Kayak Rental business that operates out of the building (Figure 5-4). The added rooms are finished with wood products to complement the building's character without altering its character-defining features, such as the original wood-frame windows, plank flooring, upper storage loft area, and visible roof trusses (Figure 5-5 and Figure 5-6).

Figure 5-2. Whaling building, view southeast.

Figure 5-3. Whaling building, view northeast.

Figure 5-4. Whaling building, view south.

Figure 5-5. Whaling building, view southwest.

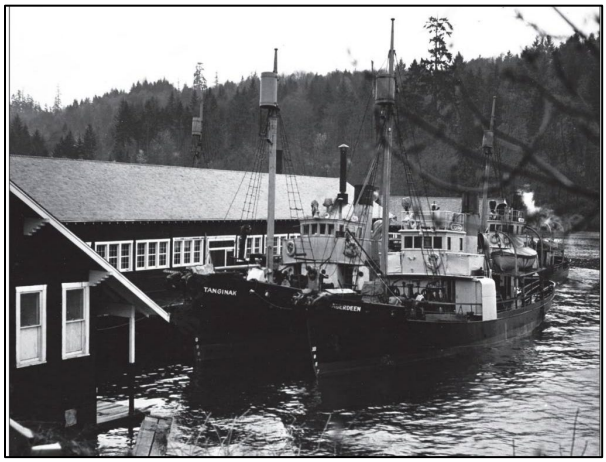

Figure 5-6. Undated photograph showing whaling vessels next to the whaling building, with the main office in the background and the garage in the foreground.

Integrity

From its period of construction (1928), the whaling building retains integrity of location. The building has not been associated with the whaling industry since the 1940s and currently operates as a kayak rental location. Therefore, the building no longer retains integrity of association. In the 1950s, a roof extension was added on the southwest elevation to cover the area between the whaling building and the main office (no longer extant). This roof addition was removed when the main office was demolished in the 1990s. Without the main office, the resource no longer retains integrity of setting. Extant alterations to the building include the added recessed entry on the northeast elevation and the addition of divided interior rooms. With the removal of the major alteration to the building in the 1990s and compatibility of the entrance and interior alterations, as well as the preservation of significant character-defining features including wood siding, windows, and doors, the building retains integrity of design, materials, workmanship, and feeling.

Evaluation

In 1918, William Schipp purchased the APWC and the North Pacific Sea Products Company and moved the whaling company headquarters to his new lakeside property purchased on Meydenbauer Bay in 1917. In 1919, the company constructed its first dock on the site, which became the winter harbor of the company's fleet of ships. The location of the whaling company at Meydenbauer Bay encouraged economic growth in a primarily agricultural Bellevue. The original APWC building burned in a fire and was replaced with the extant whaling building in 1928, which continued to support the maintenance and repair of the whaling vessels as they were stored at the dock in winter months (Tobin 1992a). When the first bridge across Lake Washington was constructed in 1939, the city began to grow into a bustling suburb (Williams 2016). The U.S. Navy cancelled the company's whaling permit in 1942 due to World War II, and the U.S. Coast Guard took over the ships and dock for use in the department's patrol service (*Bremerton Daily News Searchlight* 1942; Tobin 1992a). In the late 1950s, Schupp's grandson Bill Lagen and his family converted the dock and associated buildings into the Meydenbauer Bay Marina, and Pier 1 was modified around the whaling building, while a new Pier 2 was constructed to the east. The marina was damaged by heavy snow in 1996, and Lagen sold it to the City, which had plans to expand a public park on Meydenbauer Bay (City of Bellevue n.d.). The whaling building is associated with industrial development on Lake Washington before the City was incorporated in 1953. Therefore, the whaling building is significant under Criteria A in the area of Industry.

Preliminary research indicated that the resource is associated with William Schupp, owner of the APWC between 1917 and 1949. His investment in the company and its dock at Meydenbauer Bay was a catalyst for the development of the city. In order to be eligible under Criterion B, "the persons associated with the property must be individually significant within a historic context," and the property is "usually . . . associated with a person's productive life, reflecting the time period when he or she achieved significance" (NPS 1997:15). Located on Meydenbauer Bay, the APWC was one of the first industrial businesses on Lake Washington after the Lake Washington Ship Canal was constructed, which lowered the water level of Lake Washington. While the whaling building at the Meydenbauer Bay Marina is associated with the APWC, primary activities of the company took place at different locations including the whaling stations in Bay City, Washington, and Port Hobron near Kodiak, Alaska. As such, the whaling building is not the best representation of the APWC's whaling activities in the Pacific Northwest. Therefore, the resource is not significant under Criterion B for its association with William Schupp and the APWC.

The resource does embody distinctive characteristics of its type, period, and method of construction, specifically a largely utilitarian maritime industrial building, located on a dock, on a pier foundation, with sliding entry doors, wood siding, and rows of multi-light, wood-frame windows. The building also has a several decorative elements from the Craftsman style, namely the massing, wood siding, stepped brackets under the gable ends, exposed rafter tails, and the triple wood-frame windows. Therefore, the whaling building is significant under Criterion C in the area of Architecture. The resource does not represent the work of a master, possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction (i.e., is part of a district).

Finally, the resource was built of common construction methods and well-known materials and is unlikely to answer important research questions or yield information about human history that can

only be answered by the actual physical material, design, construction methods, or interrelation of these resources (Criterion D).

HRA recommends the whaling building meets Criteria A and C in the areas of Industry and Architecture, respectively, for individual listing in the NRHP for its association with the APWC and Craftsman style architecture. The resource's boundary is assumed to be footprint of the building. Its period of significance dates from its construction in 1928 to 1956, when the property was converted for recreational use by William Lagen. Character-defining features of the resource include its location; gabled roof; stepped brackets; upper story storage doors directly under the gable; triple wood-frame, double-hung-sash windows; horizontally sliding doors; and wood siding.

5.2 Ice House (Former Garage)

Constructed in 1928 after the original dock burned, the building at 2 99th Ave. NE was originally used as a garage and storage loft for the APWC. The building was converted for residential use as a duplex in the 1950s. The two-story, rectangular building sits on a poured-concrete foundation with its balcony on piers over the water, is clad in horizontal wood siding, and is topped by a cross-gabled roof clad in asphalt shingles with stepped brackets (Figure 5-7 and Figure 5-8). Two entrances are located on the southeast elevation, which features one original horizontal-sliding door at the north corner with a recessed entrance to the first-floor unit; three aluminum-frame sliding windows; and an exterior, wood, central staircase leading to the second-floor unit. The northwest elevation features a single slender aluminum-frame sliding window on the second floor and a shed roof dormer. The southwest elevation features three aluminum-frame sliding windows, one aluminum-frame picture window flanked by sliding windows, a window opening on the second floor for the recessed balcony, and stepped brackets. The southeast elevation features a central sliding glass door on the first floor leading to the patio over the water, a recessed balcony on the second floor, a projecting gable dormer with living space on the second floor, three large aluminum-frame sliding windows, and four slender aluminum-frame sliding windows. The patio over the water is constructed of wood and supported by a post and pier foundation with a wood railing featuring minimal ornamentation.

Figure 5-7. Garage, view northeast.

Figure 5-8. Garage, view southwest.

Integrity

From its period of construction (1928), the former garage retains integrity of location. Due to its conversion from an industrial garage to a residential duplex, the building no longer retains integrity of association. Due to the construction of the Meydenbauer Bay Park Marina, Pier 1, around the adjacent whaling building, the resource no longer retains integrity of setting. Further, when the building was converted into a duplex between 1956 and 1958, the second-floor recessed balcony, southeast second-floor addition, northwest dormer, and first floor porch hanging over the shoreline were constructed; windows and doors were replaced; and the interior was entirely remodeled. Due to these additions and alterations, the building no longer retains integrity of design, materials, workmanship, or feeling.

Evaluation

In 1918, William Schipp purchased the APWC and the North Pacific Sea Products Company and moved the whaling company headquarters to his new lakeside property purchased on Meydenbauer Bay in 1917. In 1919, the company constructed its first dock on the site, which became the winter harbor of the company's fleet of ships. The location of the whaling company at Meydenbauer Bay encouraged economic growth in a primarily agricultural Bellevue. The original APWC building burned in a fire and was replaced with the extant whaling building and former garage, now known as the ice house, in 1928, which continued to support the maintenance and repair of the whaling vessels as they were stored at the dock in winter months (Tobin 1992a). When the first bridge across Lake Washington was constructed in 1939, the city began to grow into a bustling suburb (Williams 2016). The U.S. Navy cancelled the company's whaling permit in 1942 due to World War II, and the U.S. Coast Guard took over the ships and dock for use in the department's patrol service (*Bremerton Daily News Searchlight* 1942; Tobin 1992a). In the late 1950s, Schupp's grandson Bill Lagen and his family converted the dock and associated buildings into the Meydenbauer Bay Marina. The marina was damaged by heavy snow in 1996, and Lagen sold it to the City, which had plans for a public park on Meydenbauer Bay (City of Bellevue n.d.). The garage is associated with industrial development on Lake Washington before the City was incorporated in 1953. Therefore, the garage is significant under Criteria A in the area of Industry.

Preliminary research indicated that the resource is associated with William Schupp, owner of the APWC between 1917 and 1949. His investment in the company and its dock at Meydenbauer Bay was a catalyst for the development of the city. In order to be eligible under Criterion B, "the persons associated with the property must be individually significant within a historic context," and the property is "usually . . . associated with a person's productive life, reflecting the time period when he or she achieved significance" (NPS 1997:15). Located on Meydenbauer Bay, the APWC was one of the first industrial businesses on Lake Washington after the Lake Washington Ship Canal was constructed, which lowered the water level of Lake Washington. While the former garage at the Meydenbauer Bay Marina is associated with the APWC, primary activities of the company took place at different locations including the whaling stations in Bay City, Washington, and Port Hobron near Kodiak, Alaska. As such, the garage is not the best representation of the APWC's whaling activities in the Pacific Northwest. Therefore, the resource is not significant under Criterion B for its association with William Schupp and the APWC.

Due to a series of alterations and additions, as well as a change of use, the resource no longer embodies the distinctive characteristics of a type, period, and method of construction, specifically

those of a largely utilitarian garage. In contrast to the adjacent whaling building, the building retains few decorative elements from its original Craftsman style, mainly limited to its massing, wood siding, and the stepped brackets under the gable ends. Other character-defining features of the Craftsman style, including wood-frame windows and exposed rafter tails, have been removed or replaced with incompatible materials. One prominent feature of the Craftsman style present on the ice house and not on the whaling building is a full-length porch. However, the ice house's full-length porch, constructed between 1956 and 1958, is not part of the building's original design and does not include typical Craftsman style porch supports, which include "short, square columns rest[ing] upon more massive piers or upon a solid porch balustrade" (McAlester 2015:568). Further, due to the conversion of the former garage into a duplex, only one of the large horizontally sliding garage doors remains, the final remnants of the building's use as a garage. The resource does not represent the work of a master, possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction (i.e., is part of a district). Therefore, the former garage is not significant under Criterion C.

Finally, the resource was built of common construction methods and well-known materials and is unlikely to answer important research questions or yield information about human history that can only be answered by the actual physical material, design, construction methods, or interrelation of these resources (Criterion D).

Despite the building's association with the APWC, HRA recommends the former garage not eligible for listing in the NRHP due to an irretrievable loss of integrity.

5.3 Meydenbauer Bay Marina, Pier 1

Constructed in 1928 and substantially modified between 1956 and 1958, Pier 1 was built around the existing APWC whaling building. After the modifications, the pier had covered slips on the northwest and southeast sides; however, the roof covering the slips, as well as the whaling company's main office building at the southwest end of the pier, were removed in the 1990s (NETROnline 2024). At the time of survey, the pier had twenty slips and was generally rectangular with smaller slips toward the northeastern end and one long slip at the southwest end. The pier is constructed with wood posts and beams and topped with a wood deck featuring low railings to which boats can tie (Figure 5-9 and Figure 5-10).

Figure 5-9. Meydenbauer Bay Marina, Pier 1, view northeast.

Figure 5-10. Meydenbauer Bay Marina, Pier 1, view southwest.

Integrity

From its period of construction (1928), the structure retains integrity of location and setting. The pier no longer serves the whaling industry and is used for recreational purposes. Therefore, the resource no longer retains integrity of association. Between 1956 and 1958, Bill Lagen renovated the pier and the APWC buildings around it for recreational use. Further renovations were made in the 1990s, including the removal of the roof covering the piers and the APWC main building. Therefore, the structure no longer retains integrity of design, materials, workmanship, or feeling.

Evaluation

In 1918, William Schipp purchased the APWC and the North Pacific Sea Products Company and moved the whaling company headquarters to his new lakeside property purchased on Meydenbauer Bay in 1917. In 1919, the company constructed its first dock on the site, which became the winter harbor of the company's fleet of ships. The location of the whaling company at Meydenbauer Bay encouraged economic growth in a primarily agricultural Bellevue. The original APWC building burned in a fire and was replaced with the extant whaling building and former garage, now known as the ice house, in 1928, which continued to support the maintenance and repair of the whaling vessels as they were stored at the dock in winter months (Tobin 1992a). When the first bridge across Lake Washington was constructed in 1939, the city began to grow into a bustling suburb (Williams 2016). The U.S. Navy cancelled the company's whaling permit in 1942 due to World War II, and the U.S. Coast Guard took over the ships and dock for use in the department's patrol service (*Bremerton Daily News Searchlight* 1942; Tobin 1992a). Pier 1 is associated with industrial development on Lake Washington before the City was incorporated in 1953. Therefore, Pier 1 is significant under Criteria A in the area of Industry.

After Schupp's death in 1947, his grandson Bill Lagen and his family took ownership of Schupp's land along Meydenbauer Bay and developed the area into a recreational marina Lagen renovated the whaling company buildings and piers to serve the marina between 1956 and 1958 (City of Bellevue 2019; Mcomber 1998; Meydenbauer Bay Yacht Club 2024). The former garage, now known as the

ice house, was converted into a duplex, with one unit being used as the caretaker's cottage (Schumacher 2008). In 1998, Lagen sold the pier and whaling buildings to the City for public use (Mcomber 1998).

The Meydenbauer Bay Yacht Club may have used Lagen's pier as early as 1947, when they bought the nearby Wildwood Park Dance Hall. Established in 1946, the Meydenbauer Bay Yacht Club founding members included Marc Lagen, Frank Armstead, Burt Marshall, Gilbert Skinner, Thomas Bannon, Gail Williams and Dwight Hartman. In 1952, the Meydenbauer Bay Yacht Club acquired the waterfront parcel containing the Wildwood Park Dance Hall building from Lagen, who retained the parcel containing the APWC. Due to material shortages after World War II, the club was unable to remodel the clubhouse or build a formal dock. The first boat piers constructed by the club were "primitive" and built with scrap materials, and Lagen may have allowed the club to use the APWC pier after the company ceased operations in 1947 (Meydenbauer Bay Yacht Club 2024).

While the Meydenbauer Bay Yacht Club is not one of the oldest in Puget Sound, it is one of the early post-World War II yacht clubs on Lake Washington. However, mere association with historic trends is not enough to qualify under Criterion A. The property must have a specific association, and that association must be important (NPS 1997). No evidence was uncovered that Meydenbauer Bay Marina, Pier 1, played an important role in recreation along Lake Washington. As such, Meydenbauer Bay Marina, Pier 1, does not appear to qualify under Criterion A in the area of Recreation.

Preliminary research did not reveal an association of the resource with the lives of significant persons. While the dock and building around which the pier was built, along with the clubhouse and surrounding land, were owned by William Schupp, a prominent early businessperson in Bellevue, the pier was constructed after his death and is not associated with his life (Criterion B).

The resource does embody distinctive characteristics of its type, period, and method of construction, specifically a late twentieth-century recreational pier, with its wood pier foundation, wood decking, and location within a marina. The resource does not represent the work of a master, possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction (i.e., is part of a district).

Finally, the resource was built of common construction methods and well-known materials and is unlikely to answer important research questions or yield information about human history that can only be answered by the actual physical material, design, construction methods, or interrelation of these resources (Criterion D).

Despite the structure's association with the AWPC, HRA recommends the Meydenbauer Bay Marina, Pier 1, not eligible for listing in the NRHP, due to an irretrievable loss of integrity.

5.4 Meydenbauer Bay Marina, Pier 2

Constructed between 1956 and 1958, Pier 2 was built on the bank of Lake Washington in Bellevue, southeast of Pier 1. The pier is constructed with wood posts and beams and topped with a wood deck featuring low railings to which boats can tie. Additionally, the pier is only accessible to pedestrian traffic through a metal gate and was originally covered by a rectangular roof, but two central portions of the roof were removed in the 1990s to provide slips for taller boats (NETROnline 2024). The pier retains its generally rectangular shape, even though the roof has been

partially demolished. At the time of survey, the pier was generally rectangular with covered slips on the northwest and southeast sides and four centrally located uncovered slips. Access to the pier is restricted by a metal gate. The roof is constructed of steel rafters along wood beams supported by wood posts (Figure 5-11 and Figure 5-12).

Figure 5-11. Meydenbauer Bay Marina, Pier 2, view northeast.

Figure 5-12. Meydenbauer Bay Marina, Pier 2, view southwest.

Integrity

From its period of construction, the pier retains integrity of location, setting, and association, as it remains at its original location and continues to be used for maritime recreation. In the 1990s, two sections of the roof were removed to accommodate taller ships. The removal of these sections has altered the roofline, which at the time of survey appeared to be two separate roofs. Due to the alteration in the roofline and the addition of a metal gate restricting pier access, the pier no longer retains integrity of design, materials, workmanship, or feeling.

Evaluation

In 1946, the Meydenbauer Bay Yacht Club was established to provide inexpensive moorage on the east side of Lake Washington. The club purchased the Wildwood Park Dance Hall and surrounding land in 1952 and constructed the pier between 1956 and 1958 around the APWC whaling building and a second pier east of it during the conversion of the company dock into the Meydenbauer Bay Marina. The club developed the marina over time, first by constructing the piers and creating parking and then by renovating and adding to the clubhouse (former dance hall). While the Meydenbauer Bay Yacht Club is not one of the oldest in Puget Sound, it is one of the early post-World War II yacht clubs on Lake Washington. However, mere association with historic trends is not enough to qualify under Criterion A. The property must have a specific association, and that association must be important (NPS 1997). No evidence was uncovered that Meydenbauer Bay Marina, Pier 2, played an important role in recreation along Lake Washington. As such, Meydenbauer Bay Marina, Pier 2, does not appear to qualify under Criterion A

Preliminary research did not reveal an association of the resource with the lives of significant persons (Criterion B).

The resource does embody distinctive characteristics of its type, period, and method of construction, specifically a late twentieth-century recreational pier, with its wood pier foundation, wood decking, and location within a marina. The resource does not represent the work of a master, possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction (i.e., is part of a district).

Finally, the resource was built of common construction methods and well-known materials and is unlikely to answer important research questions or yield information about human history that can only be answered by the actual physical material, design, construction methods, or interrelation of these resources (Criterion D).

HRA recommends Meydenbauer Bay Marina, Pier 2, not eligible for listing in the NRHP, due to a lack of significance and an irretrievable loss of integrity.

6 Conclusions and Recommendations

HRA's background research on the project area and its vicinity revealed that there are no documented archaeological resources within the project area. The nearest documented resource is located approximately 0.8 mi east of the project area. Limited subsurface testing in the form of shovel probes and geotechnical test pits has revealed a history of extensive cut-and-fill disturbance to the area, which may diminish the likelihood of encountering intact archaeological resources. However, DAHP's predictive model classifies the project area as being High to Very High Risk for the identification of archaeological sites, and a known Salish placename refers to a prolific run of fish at Meydenbauer Creek, currently located approximately 0.2 mi south of the project area. Additionally, native lacustrine sediments have been encountered in shovel probes along the shoreline of the park. HRA recommends that any future project plans avoid ground-disturbing activity along areas of the shoreline without a history of disturbance. If such activity cannot be avoided, archaeological monitoring may be recommended. Ground-disturbing activity in areas with existing evidence of disturbance, including at the existing piers, is unlikely to encounter or disturb intact archaeological resources.

HRA identified four built-environment resources within the project area constructed in 1979 or earlier. One of these resources, the Whaling Building (Property ID 672621), was determined eligible for listing in the NRHP in 2013 as part of the Project's Phase 1. Because the documentation of the building was over 10 years old, HRA updated the documentation and conducted research to evaluate whether the building remained NRHP eligible. HRA concurs with the previous determination and recommends specifically that the whaling building is individually NRHP eligible under Criteria A and C in the areas of Industry and Architecture, respectively, for its association with William Schupp and the APWC and Craftsman style architecture. The resource's boundary is assumed to be the footprint of the building with a period of significance from 1928, when it was constructed, to 1998, when the property was sold to the City for a public park. The remaining three resources identified as part of this study, including the ice house, Pier 1 and Pier 2, are recommended not eligible for listing in the NRHP, due to an irretrievable loss of integrity.

HRA's recommendations regarding the NRHP eligibility of surveyed resources generally form the basis for cultural resources reviews under local and state regulations. Only a local agency (King County or the City) can determine whether a resource qualifies for listing in local registers of historic places. Only DAHP can determine whether a resource qualifies for listing in the Washington Heritage Register. Only a federal agency (or, in some cases, DAHP) can determine whether a resource qualifies for listing in the NRHP. Alternatives analysis, presented below, assumes that HRA's recommendations lead to formal determinations of eligibility once a regulatory framework for the project has been established.

6.1 Alternatives Analysis

Based on HRA's understanding of the Project, the City is considering two alternatives for the ice house (former garage): the rehabilitation and reuse of the building or demolition of the building. Additionally, the Project will alter pedestrian and vehicular traffic immediately adjacent to the whaling building and ice house in an effort to create more intuitive paths between the marina and Meydenbauer Bay Park.

6.1.1 Whaling Building

HRA recommends that the Whaling Building (Property ID 672621) remains NRHP eligible and that project actions for either alternative would impact the area around the building but not the building itself. As the whaling building's integrity of setting has already been diminished, and its setting is not considered a character-defining feature, HRA recommends the Project will not adversely affect the whaling building under either alternative, as long as construction activities will not damage or alter the materials of the whaling building itself.

6.1.2 Ice House

HRA recommends the ice house not eligible for listing in the NRHP under any criteria. If it is formally determined not eligible for listing, it is not considered a historic property, and the Project, under either alternative, has no potential to adversely affect it under state and federal regulations.

However, should the building be determined eligible for listing in local, state, or national registers of historic places, HRA recommends choosing rehabilitation over demolition, and further recommends the rehabilitation meet the SOI's Standards and Guidelines for the Treatment of Historic Properties under the "rehabilitation" alternative (NPS 2024).

Potential Rehabilitation of the Ice House (Former Garage)

The NPS defines rehabilitation as "the act or process of making possible a compatible use for a [historic] property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values" (NPS 2024). Historic properties are defined as historic resources listed in or eligible for listing in the NRHP. The SOI Standards of Rehabilitation take economic and technical feasibility into consideration:

1. A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.
2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.
3. Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.
4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.
5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a historic property shall be preserved.
6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.

7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.
8. Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.
9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.
10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

While HRA recommends the ice house (former garage) not eligible for listing in the NRHP, should the City choose to keep it, HRA recommends generally following the above SOI Standards for Rehabilitation as the project design moves forward, specifically Standards 1, 2, 5–7, 9–10. Although the building has lost integrity, HRA recommends the remaining distinctive architectural elements of the ice house (former garage) are those elements shared with the adjacent NRHP-eligible Whaling Building (Property ID 672621), namely the gabled roof, stepped brackets, horizontally sliding doors, and wood siding.

SOI Standard for Rehabilitation 1

In following the SOI Standards, HRA recommends the following potential compatible uses for the currently vacant building, which would require minimal changes to distinctive characteristics of the building:

- Rental space for community events similar to pavilion rentals in public parks;
- Exhibition space for rotating exhibits of various topics or for a permanent exhibit on the history of William Schupp and the APWC; or
- A visitors center with restrooms, a small lounge, and area maps for nearby attractions in Bellevue.

SOI Standards for Rehabilitation 2, 5 and 6

HRA recommends the preservation or reuse of distinctive architectural features that match the adjacent NRHP-eligible whaling building, including the gabled roof, stepped brackets, horizontally sliding doors, and wood siding (Standards 2 and 5). In cases where these distinctive architectural features require replacement, HRA recommends the new features match the old in material, design, color, and texture (Standard 6).

SOI Standard for Rehabilitation 7

HRA recommends cleaning and treatment methods that will not cause damage to the physical elements of the ice house. While sand blasting is an efficient cleaning treatment for painted materials, the force with which it is used can cause substantial damage to porous materials such as

wood. As such, the SOI Standards for Rehabilitation do not allow for this cleaning treatment option. Additionally, HRA recommends a detailed review of the potential impact of chemical treatments on any building materials, specifically wood features.

SOI Standards for Rehabilitation 9 and 10

HRA recommends retaining the architectural features that match the adjacent NRHP-eligible whaling building. The gable roofline with stepped brackets should be preserved where possible. The original windows and doors have been replaced over time, and further alterations to the fenestration would not detract from the building's distinctive architectural features. However, HRA recommends preserving the horizontal-sliding door at the building's west corner or reusing the door in a different location if it cannot be retained in its original location. Replacement of wood siding should be made with compatible materials of similar slat widths and color. In the case of an addition to the ice house, HRA recommends the addition maintain a gable roofline with stepped brackets similar to those on the original building, the use of compatible wood siding of similar slat width and color, and the use of horizontally sliding doors similar to the one at the building's west corner.

6.1.3 Pier 1

HRA recommends Pier 1 not eligible for listing in the NRHP under any criteria. If this recommendation results in a formal determination of not eligible for the resource, it is not considered a historic property, and the Project has no potential to adversely affect or impact it (under Section 106 of the National Historic Preservation Act or the State Environmental Policy Act).

6.1.4 Pier 2

HRA recommends Pier 2 not eligible for listing in the NRHP under any criteria. If this recommendation results in a formal determination of not eligible for the resource, it is not considered a historic property, and the Project has no potential to adversely affect or impact it (under Section 106 of the National Historic Preservation Act or the State Environmental Policy Act).

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Meydenbauer Bay Park's Expansion
Summer 2023 - Winter 2024 Outreach Summary

Published January 2025

Bellevue Parks & Community Services

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Bellevue Parks & Community Services

Executive Summary

The goal of Meydenbauer Bay Park's expansion is to create enhanced connections between Bellevue's downtown, the waterfront and the existing park. Over a decade has passed since the adopted 2010 Meydenbauer Bay Park and Land Use Plan (the 2010 Plan) and the City of Bellevue has evolved since. As part of planning for the expansion of Meydenbauer Bay Park, the City of Bellevue engaged the community to gather current priorities and feedback on the refined design concepts for the park's next phases.

Engagement Goals

The overall engagement goals were to:

- **Establish** and/or deepen a strong community sense-of-place based on the current and historical resources present at Meydenbauer Bay Park
- **Educate** residents and park visitors about the existing 2010 Plan and related Grand Connection vision linking Meydenbauer Bay Park to Downtown Park and beyond
- **Engage** new audiences – particularly historically underserved communities – in seeing this park as part of their Bellevue experience and sharing their ideas for the park's future
- **Bring** neighbors along in the design process and center equity
- **Build** excitement for the expanded park design and future construction
- **Invite** community input at strategic points throughout the process while maintaining alignment with the existing 2010 Plan

Engagement Schedule

The project team engaged with the community between summer 2023 and winter 2024 to ensure community priorities were being reflected in the park's expansion.

Goals for each of the engagement opportunities were:

Summer 2023: Raise awareness about the project and planned expansion of the park
Winter 2023: Confirm community needs and priorities and seek feedback on potential expansion amenities and uses from new and current park users

Summer 2024: Present research, share updated designs and seek feedback on prioritization of project elements
Winter 2024: Ensure current community priorities are reflected in the refined designs

Outreach began in Summer 2023, aimed to understand how the City could best honor the guidelines of the 2010 Plan and meet the present-day needs and priorities of the community. Through this outreach effort, the City raised awareness for the future redevelopment plans of the park and gained valuable insight on the current top priorities to make the park more accessible.

The next outreach opportunities from Fall 2023 through Summer 2024 explored community feedback on specific amenities and features unique to different areas of the park. Feedback from those outreach efforts reflected a desire for natural shorelines, views of the bay, increased seating, and improved connections to and in the park.

The final period of engagement in Winter 2024 involved sharing the refined designs based on feedback, City planning principles, and feasibility and ensuring community priorities were satisfactorily reflected.

Summer 2023-Winter 2024: Engagement by the Numbers

Outreach included a robust notification strategy to raise awareness about the project, create broad access to engagement opportunities and ensure survey feedback was gathered from all interested Bellevue residents:

- Notifications received over 230,000 impressions (including social media posts, mailers, website and radio advertisements and newsletters)
- Tabling and pop-up events reached approximately 1,000 people
- Engaging Bellevue website received 13,610 views over the duration of outreach

Across our surveys, we heard from 1,649 community members with responses from people living in neighborhoods all over Bellevue. We received 729 survey responses from people residing in Downtown and West Bellevue near Meydenbauer Bay Park. We also heard from over 100 people who have a disability, informing aspects of our accessibility decisions. Over 40 different languages are spoken across all of those who responded to the Meydenbauer Bay Park surveys.

For the duration of the engagement phase, project information and surveys were hosted on the Engaging Bellevue website and translated in English, Traditional Chinese, Simplified Chinese, Korean, Japanese, Vietnamese, Spanish, and Russian.

The Engaging Bellevue websites received a total of 13,610 impressions, including:

- **12,400** English site visits
- **296** Traditional Chinese site visits
- **187** Simplified Chinese site visits

- **175** Japanese site visits
- **175** Korean site visits
- **229** Spanish site visits
- **85** Vietnamese site visits
- **63** Russian site visits

Throughout the engagement period, the project team hosted:

- **Three surveys**: The first survey focused on general community priorities for the expansion space, the second one requested feedback on updated designs for the park's expansion and implementation prioritization and the third survey focused on assessing satisfaction with the current designs. The surveys received 1,649 total responses across different languages:
  - **1,589** English survey responses
  - **17** Russian survey responses
  - **16** Simplified Chinese survey responses
  - **14** Japanese survey responses
  - **8** Traditional Chinese survey responses
  - **4** Korean survey responses
  - **1** Spanish survey response
- **One in-person community meeting** in June 2024 to explore potential design options and park amenities, held at the Wilburton Instructional Service Center with 80 community participants. A recording of the presentation is available online.
- **One community webinar and Q&A** in November 2024 to share the park design proposal and how it evolved based on research and community input, with 70 community participants. A recording of the full webinar is available online.
- **Five briefings** with nearby neighbors and groups and the Bellevue Downtown Association.
- **14 tabling and pop-up events**
  - **Three tabling events in Summer 2023** to raise awareness about the park expansion including two at Meydenbauer Bay Park and one at the Welcoming Week Resource Fair at Crossroads Mall. Across these events, the team reached over 300 people.
  - **Four community pop-ups in Winter 2023** at City Hall, the Bellevue Downtown Library, Bellevue Botanical Garden D'Lights, and the Downtown Ice Rink. Across all events, the

Project staff tabling at the Bellevue City Hall in Winter 2023.

Project staff tabling at Meydenbauer Bay Park the in Summer 2024.

project team spoke to 168 people about the park expansion and community priorities.

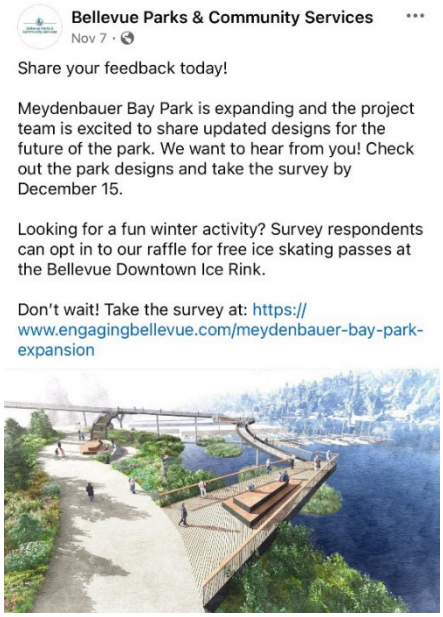
- **Four community pop-ups in Summer 2024**, including at the Bellevue Downtown Library with Chinese interpretation for library-goers and the Chinese Book Club, Mini City Hall in Crossroads with Russian interpretation, Meydenbauer Bay Park to reach neighbors and park-goers directly, and H-Mart in Downtown Bellevue with Chinese interpretation. Across these events, the team reached over 300 people.
- **Three community pop-ups in Winter 2024**, including at the Bellevue Downtown Library with Chinese interpretation for library-goers and the Chinese Book Club, Bellevue School District Language Fair to reach families, and H-Mart in Downtown Bellevue with Chinese and Korean interpretation. Across these events, the team reached 199 people.

Project staff tabling at the Bellevue School District Language Fair in Winter 2024.

Community Notifications

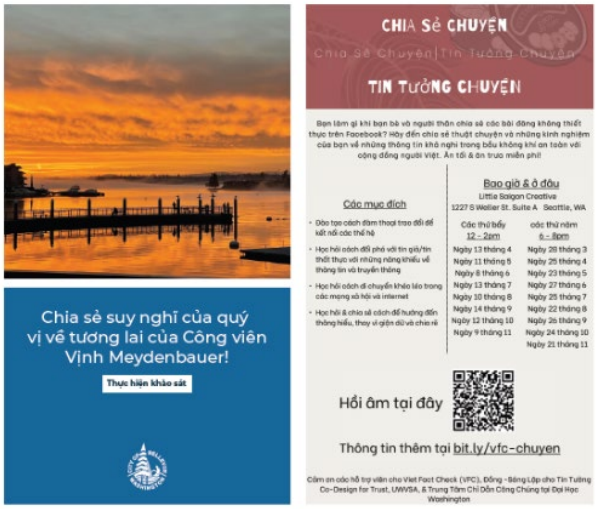
To ensure broad access to engagement opportunities, the project team promoted the Engaging Bellevue website, in-person opportunities, and surveys via the following methods:

- **18,353 total mailers** sent to neighbors at the three project milestones.
- **Partner toolkit emails** sent to 65 nearby properties, community-based organizations, and businesses to provide resources and materials to reshare engagement opportunities.
- **39 social media posts**
  - **10 social media posts in Winter 2023**, including an engaging short video and customized advertisements for different platforms, shared on the City of Bellevue's Facebook, X, Instagram, and Nextdoor accounts.
  - **14 social media posts in Summer 2024** with over 50,000 impressions, including:
    - Five posts on Bellevue Parks and Community Services social media (Facebook, Instagram, and Nextdoor).
    - Eight posts on City of Bellevue social media (Facebook, Instagram, X and Nextdoor).
    - A Bellevue-wide Facebook video advertisement, running for two weeks.



Facebook post on Bellevue Parks and Community Services page in November 2024.

  - **16 social media posts in Winter 2024**, with over 70,000 impressions including an engaging short video and customized advertisements for different platforms, shared on the City of Bellevue's Facebook, Instagram, and Nextdoor accounts.
    - Three posts on Bellevue Parks and Community Services Facebook.
    - Twelve posts on City of Bellevue social media (Facebook, Instagram, X and Nextdoor).
    - A Bellevue-wide Facebook video advertisement, running for two weeks.
- **23 English and in-language online and print display ads**
  - In Winter 2023, eight ads published in Joy Seattle, Soy Source, Seatle Chinese Times, Chinese Radio Seattle, La Radio de Seattle, NW Vietnamese News, and Russian Town Center.
  - In Summer 2024, 12 ads published in the International Examiner (English), Seattle Chinese Times (Simplified Chinese), Joy Seattle (Korean), Soy Source (Japanese), Northwest Vietnamese News (Vietnamese), and in El Siete Dias (Spanish) through print and online publications and on WeChat (Simplified Chinese).
  - In Winter 2024, three ads published in Soy Source (Japanese), WeChat (Simplified Chinese), and KaKao Talk (Korean), paired with in-language outreach.



Print ad from June 2024 in Northwest Vietnamese News prompting readers to take the survey.

- **Three unique radio advertisements** in Summer 2024:
  - Mandarin advertisement on Chinese Radio Seattle, which reaches over 100,000 daily listeners.
  - Spanish advertisement on La Radio de Seattle.
  - Spanish radio interview between the DJ and project staff on La Radio de Seattle.
- **11 project email newsletters to** Meydenbauer Bay Park project subscribers reaching over 18,971 recipients throughout this engagement period.
- **One City of Bellevue newsletter** sent to nearly 74,000 Bellevue Parks and Community Services e-newsletter subscribers in Summer 2024.
- **10 fun fact posters placed throughout Meydenbauer Bay Park** to raise awareness about the park's expansion and direct park users to the project website.
- **20 posters** distributed at the Bellevue YMCA, Downtown Library, Downtown Ice Rink, and Crossroads Mall as well as distributed to community members to share in their neighborhood in Winter 2023.

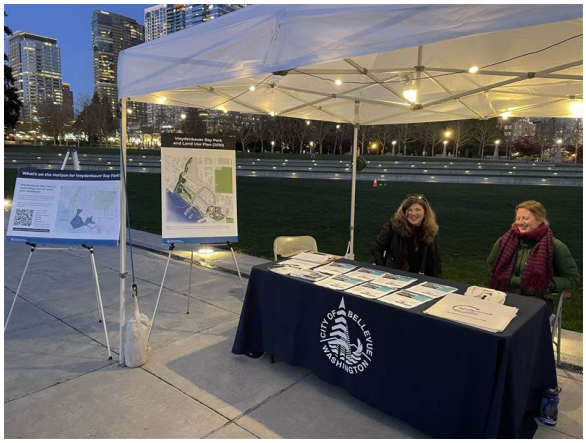
A fun fact sign displayed at Meydenbauer Bay Park

- **Two City of Bellevue (Neighborhood News) articles** published in December 2023 and November 2024.
- **City of Bellevue It's Your City article** published June 2024, delivered to 167,000 residences and businesses in Bellevue.
- **Three press releases by the City of Bellevue** published city-wide. Translated press releases were sent to five local in-language media outlets.

Community Priorities

2023 Outreach

Engagement for Meydenbauer Bay Park's expansion began in Summer 2023, where the outreach team sought to build project awareness and get high-level feedback on community priorities and how people currently use parks. The project team reached over 300 people across community events, garnered 1,200 views of the project's informational video, received over 3,300 project website views and received 480 survey responses. The main community priority was to make the park more accessible. Suggestions included making the physical space easier to navigate by reducing the steepness where possible and adding parking accommodations. Many people also expressed a desire for more recreation, vendor options, and community-oriented spaces that offer weather protection and new opportunities. For more details, read the Meydenbauer Bay Park 2023 Community Priorities Summary.



Project staff tabling at Bellevue Downtown Ice Rink in Winter 2023.

Summer 2024 Outreach

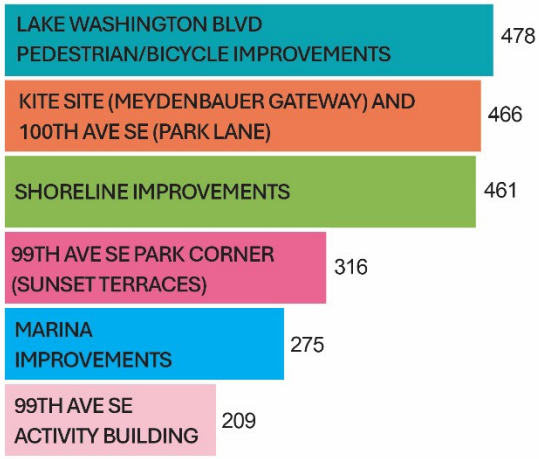
Using the feedback from the initial outreach, the project team went to work to incorporate community priorities into the updated designs. The goal was to balance the 2010 Plan framework with the wide array of new community needs and conditions.

With updated designs, the next outreach effort focused on sharing the research and design considerations in different areas of the park to gather feedback on the features and amenities, as well as prioritization of needs. Outreach explored different expansion zones, including the Kite Site (also called the Meydenbauer Gateway) and 100th Ave SE (Park Lane), Shoreline, Whaler Plaza, 99th Ave SE Corner (Sunset Terraces), Lake Washington Blvd NE and parking options. During this phase of outreach, the team reached over 380 people across

Project staff tabling at the Bellevue H-Mart in Summer 2024.

community events, received over 5,100 project website views, and received over 820 survey responses across seven languages.

Expansion Zones Ranked by Community Priority
The top three priorities for the buildout of the different elements of the expansion were Lake Washington Blvd pedestrian and bicycle improvements, Kite Site and 100th Ave SE (Meydenbauer Gateway and Park Lane) and Shoreline improvements.



Feedback priorities for the Kite Site (Meydenbauer Gateway) included views of Meydenbauer Bay, additional shade, planted areas, lighting and seating options and an outdoor gathering space. Priorities at the Shoreline included adding seating, plants, and picnic tables. For the Marina, community priorities included the ability to walk along the water and to have views of open water and wildlife. When asked for the preferred parking option off 99th Ave SE, most respondents indicated a preference for no additional parking, followed by a covered parking garage. Additionally, there was a preference for an activity building to be located midway down 99th Ave SE.

The survey results also showed that community members are particularly interested in environmental improvements, such as a naturally planted shoreline, trees for shade and continued opportunities to view the bay and wildlife. To learn more about this engagement period and feedback, read the Meydenbauer Bay Park Summer 2024 Outreach Summary.

Winter 2024 Outreach

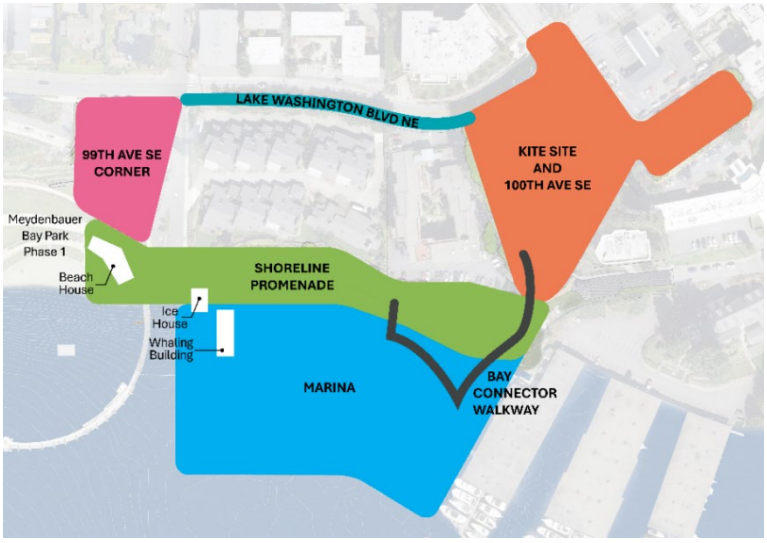
The project team refined the designs based on the collected feedback from the previous two rounds of outreach, current City planning guidelines, the 2010 Plan and feasibility studies and went back to the community to ensure they felt priorities had been reflected in a satisfactory way.

The final engagement period began with an online webinar where the project team shared the proposed designs followed by a community Q&A. The team collected input through an online survey as well as multilingual pop-up events. Feedback from these outreach methods reflected general satisfaction with the design concepts and reinforced desires for refinements and the sequencing of construction.

Project staff tabling at the Bellevue Downtown Library in winter 2024.

During this engagement period, the project team reached over 2,000 website viewers, received 342 survey responses across eight languages, spoke to 199 total participants across three community events, hosted one webinar to showcase the proposed designs and hosted one survey to gauge satisfaction on how well the design reflects the community priorities shared with the project team in earlier engagement phases.

Winter 2024 Survey Results



The survey asked the public for level of satisfaction with each area of the park, to assess if the designs were meeting current needs. Approximately 52 percent of the survey respondents live in the Downtown and West Bellevue neighborhoods. The 342 survey responses across eight languages are summarized and analyzed below by area of focus. For each focus area, survey takers were provided with information and imagery of the proposed designs and asked to rate their satisfaction level. They also had an optional write-in question to elaborate on their choice.

Key themes emphasized in the survey results include:

- Overall satisfaction with the proposed designs for each area and excitement for a more accessible, vibrant park with more pedestrian and bicycle amenities
- Excitement for more community gathering spaces and potential vendors
- Concerns about the loss of moorage slips and privacy for nearby neighbors
- Concerns and questions about general City funding priorities and overall anticipated project budget

- Desire for more ADA accessible design and park user safety measures

Each area of the park received majority support, indicating community needs are being met and designs can move forward into phased construction. The most contentious area was the Marina and Bay Connector, receiving 58.3% support. All other areas received a supermajority (60% or more) indicating support. The winter survey results and comment themes are available in the appendix.

Kite Site (Meydenbauer Gateway)

Proposed improvements for the Kite Site include:

- Paths down to Meydenbauer Bay with seating and natural landscaping
- Parking accessed off 100th Ave SE underneath the paths. This will create easier to find accessible parking for this growing waterfront park.
- A pavilion and plaza at the corner of Main Street and 100th Ave SE will serve as a weather-protected community space with iconic views of the lake and mountains and areas for vendors
- Additional proposed amenities include play elements and a water feature

How satisfied are you with the proposed Kite Site design?

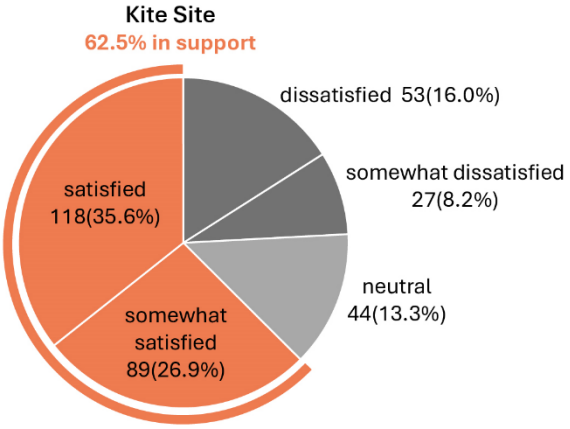
Bellevue Parks & Community Services

63% of respondents are satisfied or somewhat satisfied with the proposed Kite Site design. 16% of respondents are dissatisfied and 8% are somewhat dissatisfied.

Respondents were satisfied and looked forward to:

- Increased accessibility and parking
- Greenery and views
- Vendors and covered community gathering spaces

"I love the modern and clean design!"



Respondents who were dissatisfied were concerned about:

- The design including excessive concrete and unnatural structures
- Noise, privacy, and safety for nearby neighbors
- City funding priorities and removing existing housing
- How the proposed design elements could be utilized by park-goers

"Too much concrete and not enough greenery."

Bellevue Parks & Community Services

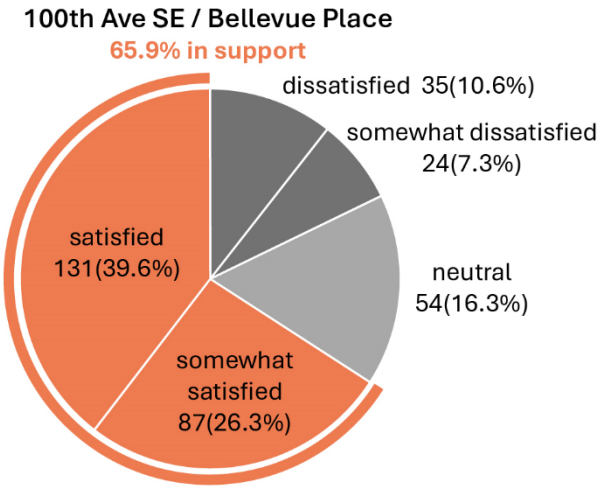
100th Ave SE (Park Lane)

The survey shared feedback from previous outreach that pedestrian safety and maintaining vehicle access to 100th Ave SE are key priorities for community members. The updated concept keeps 100th Ave SE / Bellevue Place open to two-way traffic with added traffic calming measures, including narrowing the street and adding crosswalks.

How satisfied are you with the proposed design of 100th Ave SE / Bellevue Place?
66% of respondents are satisfied or somewhat satisfied with the proposed 100th Ave SE / Bellevue Place design. Only 10% and 7% of respondents said they are dissatisfied and somewhat dissatisfied, respectively.

Respondents were satisfied and looked forward to:

- Keeping 100th Ave SE open
- Adding an additional sidewalk and bicycle infrastructure on Lake Washington Boulevard



"As a property owner in the building affected the most by these changes, I am happy to see that 100th will stay open!"

"It's a good idea to balance walkability in a neighborhood, especially in an area so close to a park that many children and elderly use."

Respondents who were dissatisfied were concerned about:

- Increased traffic congestion and 100th Ave SE becoming too narrow
- Removing street parking on 100th Ave SE

"While I am glad to see traffic calming measures, I think it's odd to have vehicle access so close to what's a peaceful recreation area."

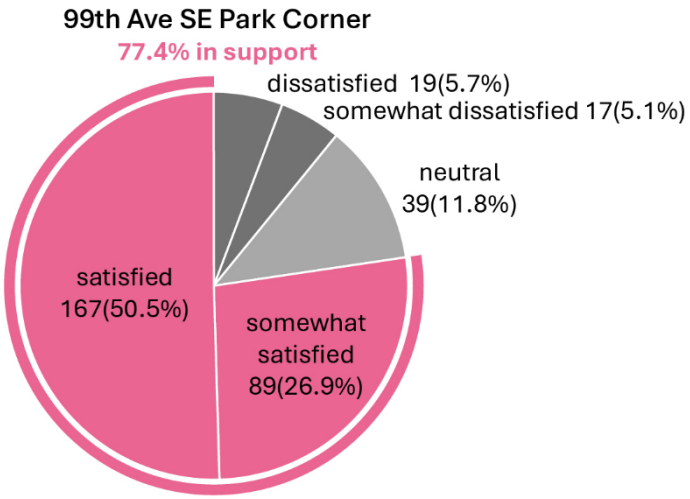
"Although I understand new additional parking spaces will be included in the Kite site and across the street off of 100th, it will be very unfortunate to lose parking spaces on the south side of Bellevue Place. Parking is super scare as is."

Park corner at 99th Ave SE (Sunset Terraces)

The park corner at 99th Ave SE is re-envisioned with stairs and paths for easier pedestrian access down the hill. Improvements include adding more play and recreational elements, seating, and shade. No enclosed building or additional parking is proposed at this time.

How satisfied are you with the proposed design at the corner of 99th Ave SE?

Over 77% of respondents said they are satisfied or somewhat satisfied with the proposed park corner improvements at 99th Ave SE. This proposal received the least amount of dissatisfaction at 6%, as well as 5% who are somewhat dissatisfied.



Respondents were satisfied and looked forward to:

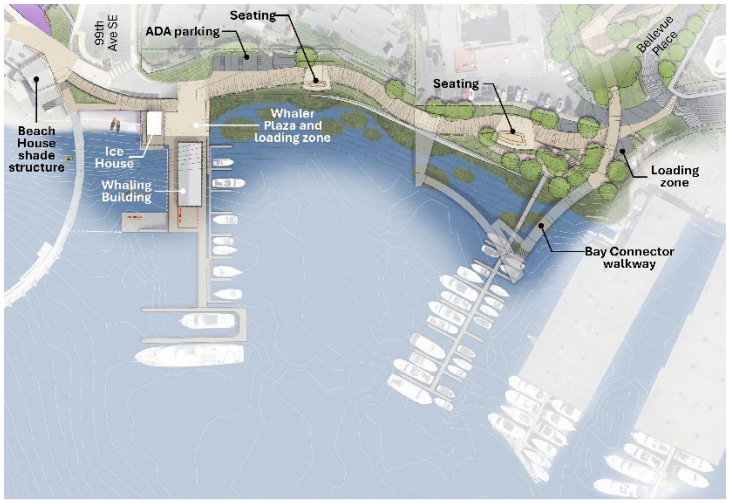
- Improved accessibility, safety, and general park experience
- Additional landscaping, shade and prioritization of the natural environment
- No parking or structural development at this location
- More amenities and play elements

"I appreciate easier pedestrian access. We usually approach the park from either the ravine or the marina side."

"The park concept is preferred over building a structure. It's more natural. And the park definitely needs shade."

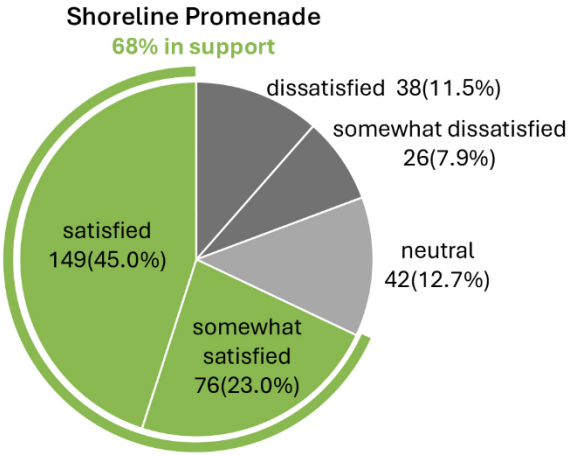
Shoreline Promenade (Lakeside Promenade)

The design of the Shoreline Promenade creates a pedestrian pathway that includes seating, shade, planting, and lighting. In addition, the Ice House, also known as the caretaker's house, is re-envisioned to better connect to the existing park while preserving the historic Whaling Building and a new shade structure is proposed for the existing Beach House. Unloading areas will be provided at the bottom of 99th Ave SE and 100th Ave SE.



How satisfied are you with the proposed Shoreline Promenade design?

68% of respondents are satisfied or somewhat satisfied with the proposed design. Only 12% are dissatisfied and 8% are somewhat dissatisfied.



Respondents were satisfied and looked forward to:

- Having an additional food and/or recreation vendor near the shoreline
- Prioritizing nature and restoring the shoreline with minimal development and/or marina activity
- Additional public waterfront access and walkways

"I love the highlight of the historical building. It would be nice to have tours or staff to talk about history of Bellevue on the weekends. Perhaps even a space for coffee/tea."

"I've always wished that there would be a little more pleasing tie-in down there rather than a stark parking lot."

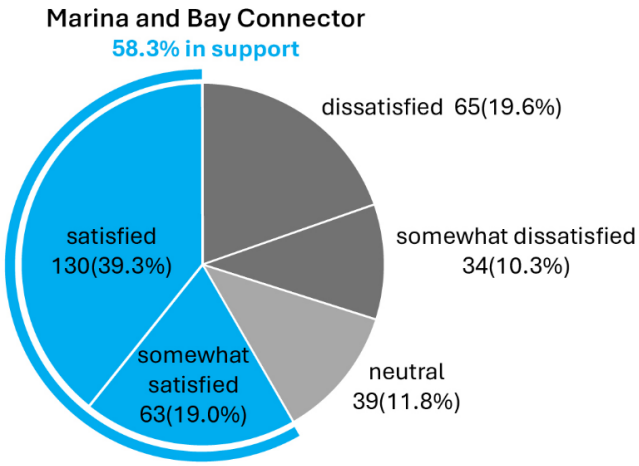
Respondents who were dissatisfied were concerned about:

- Vehicle access, parking and congestion
- Funding and overall budget

Marina and Bay Connector

The survey shared the Marina design, noting that it creates more visual access to open water. The design proposal recommends removing one pier of monthly moorage slips, while preserving one pier of monthly moorage. At the Whaling Building, there will be more public access to the pier, including relocated public slips, and new amenities for personal non-motorized watercrafts (such as a floating dock, air pumps, and locker access). A sloped walkway called the 'Bay Connector' provides access from the Kite Site to the Shoreline Promenade. In the survey, the proposed design aimed to convey the Marina and Bay Connector balancing maritime heritage with the need for more accessible and sustainable waterfront experiences.

How satisfied are you with the proposed Marina and Bay Connector design?
58% of respondents are satisfied or somewhat satisfied with the proposed design for the Marina and Bay Connector. 29% are dissatisfied or somewhat dissatisfied with the proposed design.



Respondents were satisfied and looked forward to:

- Increased non-motorized activites
- Improved pedestrian access
- More ADA accessible design and safety measures

"Love this concept and it is creative and different. Something that could be unique to Bellevue. More seating and observation points would be nice."

"This will be an eye-catching improvement that will increase visitor engagement and ADA accessibility."

Respondents who were dissatisfied were concerned about:

- Removal of boat access and moorage and the loss of revenue from the removal of moorage slips
- Visual aestheic of design with desire for more art, seating, and marina emphasis
- Neighbor impacts and high investment from Bay Connector
- Noise, privacy, and safety for residents and boaters
- Increased congestion and not enough parking for those using the Marina
- Environmental and marine life impact

"It will be difficult for boaters to find moorage. Docking on waterfront property is an eyesore."

Additional feedback

Survey respondents had the opportunity to provide additional thoughts and feedback on the project at the end of the survey.

Many reiterated their positive feedback on the proposed designs including the improved pedestrian pathways and amenities.

"It will be an excellent origination point for the Grand Connection. This will also be a beautiful link to the Old Bellevue area, Downtown Bellevue Park and the Inspiration Playground."

"Thank you for including so many pedestrian walkways and paths in the park as well as the traffic, crosswalks, sidewalks and narrowing the street connecting to 100th."

"The project team has done a nice job and thank you for listening to the concerns of local neighborhood who will be most impacted on a daily basis by the proposed changes."

Others shared and reiterated their concerns about:

- The design not including enough greenery, shade or natural materials, and potentially negatively affecting the environment
- The improvements increasing noise and congestion and not providing enough privacy for nearby neighbors
- The removal of existing moorage slips affecting boat owners from finding a place to store their boats due to difficulty of finding other alternatives in the area
- Mixed desire for vendors including recreational, food and beverage, or stores in the Marina area—with some people viewing it as a positive attraction and others finding vendor traffic negative

Meydenbauer Bay Park Expansion Design: Survey #1, Fall 2023

We want to hear from you!

Please help us kickstart our design process by answering a few questions below. The answers given here will help us understand current park visitor experiences and your hopes and priorities for the future of Meydenbauer Bay Park. This builds off the Meydenbauer bay Park and Land Use Plan planning and implementation principles which we will delve into at a later point in the process.

1. What makes you feel included in and connected to public parks?
   [Open response]

2. How do you typically access parks in Bellevue?
   - Walking/rolling
   - Driving
   - Bike
   - Public Transit
   - Watercraft
   - Other: (please specify)

3. Have you ever been to Meydenbauer Bay Park?
   - Yes
   - No

4. What barriers can you identify to accessing the park (consider pedestrian experience, transportation, economic, social)?
   [Open response]

5. How can we make the park and waterfront easier to discover and reach from Downtown Park and the surrounding area?
   - Physical signage
   - Street/sidewalk markings
   - Increase sightlines to waterfront
   - Transit service (buses, trolleys)
   - Walking Paths/Pedestrian corridors
   - Park promotion materials
   - Other (please specify below)

6. What activities do you go to a park to participate in?
   - Swimming
   - Kayaking/SUPing/other personal watercraft
   - Sitting/lounging
   - Fishing/angling
   - Walking/running/rolling
   - Spending time with family/friends
   - Viewing wildlife
   - Exploring nature

- Exercising pets
- Attending organized events
- Community gatherings/meet-ups
- Taking children to playground
- Picnics/Barbecue
- Other (please specify)

7. What elements and/or activities could be added to the Meydenbauer Bay Park to enhance the waterfront experience?
   [Open response]

8. How important is it to you to consider nature when building and maintaining a park?
   - Not Important
   - Somewhat important
   - Neither important or non-important
   - Important
   - Very Important

9. With the goal of enhancing the environment of Meydenbauer Bay, how would you prioritize the addition of the following elements to the park's expansion? (Likert)
   - Enhanced shoreline ecosystem (high, medium, low)
   - Wetland (high, medium, low)
   - Stormwater treatment (high, medium, low)
   - Better land/terrestrial habitat (high, medium, low)
   - Better underwater/aquatic habitat (high, medium, low)
   - Ecosystem-friendly plantings (high, medium, low)
   - Improved tree canopy / increased shade (high, medium, low)
   - Sustainable building materials (high, medium, low)

10. How did you learn about the Meydenbauer Bay Park expansion project?
    - Event earlier this year
    - From Park and Land Use Plan
    - Online
    - Word of mouth
    - Signage/posters
    - Mailer
    - Through a Community Group
    - Print or Digital Publication
    - Social Media
    - Was not aware before today
    - Other: (please specify)

11. What other personal or community priorities should be considered beyond the planning principles listed here?
    [Open response]

12. What is your email address and would you like to be added to our email list?

[*City of Bellevue demographic questions will be on a second page as optional questions]*

- What neighborhood do you live in? (link to Neighborhood Area map, or GIS Lookup tool)
    - Bel Red
    - Bridle Trails
    - Crossroads
    - Cougar Mountain/Lakemont
    - Downtown
    - Eastgate
    - Factoria
    - Lake Hills
    - NE Bellevue
    - Newport
    - NW Bellevue
    - Somerset
    - West Bellevue
    - West Lake Sammamish
    - Wilburton
    - Woodridge
    - I do not live in Bellevue, but work in Bellevue
    - I do not live or work in Bellevue
    - I do not know what neighborhood area I live in
    - Prefer not to answer
- What is your age?
    - Under 18
    - 18-44 years old
    - 45-64 years old
    - 65 or older
    - Prefer not to answer
- Do you have a disability?
    - Yes
    - No
    - Prefer not to answer
- What is your race/ethnicity? (choose all that apply)
    - American Indian or Alaskan Native
    - Asian
    - Black/African American
    - Hispanic, Latino, or Spanish origin
    - Native Hawaiian or Pacific Islander
    - White
    - Two or More Races
    - Not Listed (Please specify)
    - Prefer not to answer
- Languages spoken at home: (choose all that apply)
    - American Sign Language (ASL)
    - Chinese - Cantonese
    - Chinese - Mandarin
    - English

    - French
    - German
    - Hindi
    - Japanese
    - Korean
    - Russian
    - Spanish
    - Tamil
    - Tegulu
    - Urdu
    - Vietnamese
    - Not Listed (Please Specify)
    - Prefer not to answer
- Do you rent or own your current address?
    - Rent
    - Own
    - Living with parents/grandparents/guardian/family
    - Living with friends
    - Currently without housing
    - Not Listed (Please specify)
    - Prefer not to answer
- What type of housing do you live in?
    - Single-Family House
    - Apartment, Condominium or Townhome
    - Currently without housing
    - Not Listed (Please specify)
    - Prefer not to answer
- Gender identity (Choose all that apply)
    - Female
    - Gender Neutral
    - Intersex
    - Male
    - Queer
    - Trans
    - Not Listed (Please specify)
    - Prefer not to answer
- Please choose the sexual orientation you consider yourself to be.
    - Asexual
    - Bisexual
    - Gay
    - Lesbian
    - Queer
    - Straight
    - Two or More of the Above Choices
    - Not Listed
    - Prefer Not to Answer

Thank you for participating in this feedback process, your thoughts are instrumental in defining the future of this park! Stay tuned for our next engagement period in Summer 2024.

Meydenbauer Bay Park Expansion Design: Survey #2, Summer 2024

We want to hear from you!

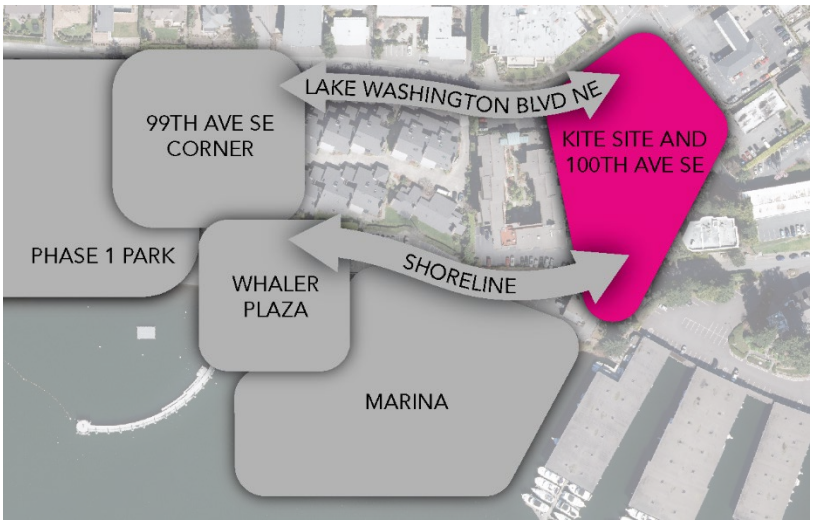
Bellevue's Meydenbauer Bay Park is expanding the existing park east toward Downtown and Old Bellevue. We are excited to hear your priorities and what you are most excited and inspired by to help shape the future design, phasing, and investment in the park.

The 2010 Meydenbauer Bay Park and Land Use Plan, City planning priorities since 2010, and your priorities voiced in fall 2023 create the guiding framework for the project. Your feedback is one of many variables that will inform next steps for what will be built and the sequencing of construction. A schedule for the full implementation of park design and construction has not yet been set and will likely take place in phases over several years.

More information can be found in the recorded presentation.

Share your priorities and thoughts in the following survey!

Kite Site



The Kite Site, given this name because of its shape, is an area at the west end of Old Bellevue, bordered by Lake Washington Blvd NE, 100th Ave SE, Bellevue Place, and the Bay.

Proposed Kite Site improvements include:

- An iconic pavilion at Main Street and 100th Ave SE
- Views of Meydenbauer Bay and the Cascades
- A plaza and covered gathering space, potentially partially enclosed for park enjoyment in inclement weather
- Integrated water elements such as art, simple fountains, small streams, or other elements.
- An accessible walkway that connects to the street, parking levels, and the shore
- Planting and trees integrated into the pedestrian experience
- Parking spaces that will be mostly screened from pedestrian view

- Places to sit, rest, and gather
- New parking for 60 to 90 vehicles
- Traffic calming and pedestrian improvements to 100th Ave SE and Lake Washington Blvd NE

1. Please select your top five priorities that you would like to see included at the Kite Site:

— Playful seating (for example nets or sculpture)

— Variety of seating options

— Play opportunities for kids

— Play & movement opportunities for teens and adults

— Public art

— Interpretative and storytelling elements

— Planting areas integrated into the walking experience

— Shade trees

— Pedestrian lighting

— Views to the bay

— A flexible, multi-use outdoor plaza space

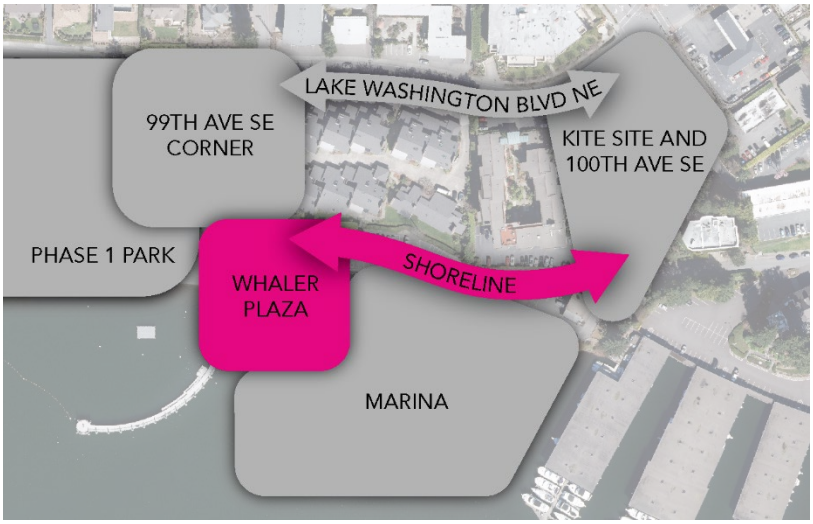
— A weather-protected gathering space

— Other [write in] _____

1. One of the features of the Kite Site is a plaza and covered gathering space. What would you like to see take place in this space? Your feedback will inform how large the space could be and what amenities it might include. Please rank each from 1-5 (with 5 being the most wanted).

	5	4	3	2	1
Unprogrammed enclosed gathering space to enjoy the park during the hot, rainy, or smoky weather					
A "welcome station" to the park with maps of the area and a ranger providing information about programs and amenities					
A rentable space for private gatherings					
Public space for small seasonal and multi-cultural gatherings					
Public restroom					
Food or beverage vendor					

Shoreline:



The shoreline experience keeps the priorities of the 2010 plan alive, emphasizing pedestrian connection, our beautiful surroundings, and amazing park experiences. Proposed Shoreline improvements include:

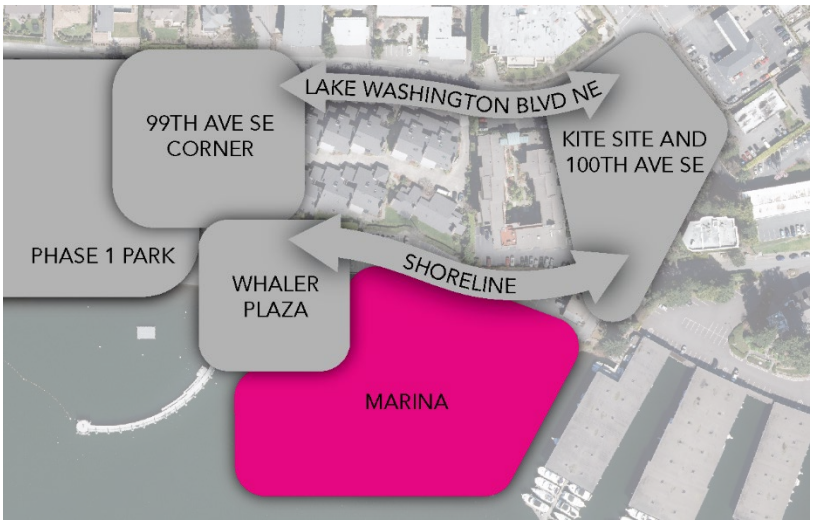
- A pedestrian experience connecting the Kite Site, the shore, and the existing park
- Universally accessible ramp bringing people over the water and down to the shore
- Seating areas
- Improved nearshore habitat including improved salmon habitat
- Continued emergency and maintenance access
- Unloading and accessible parking near the existing Whaler Building
- Improved non-motorized watercraft access to the beach

2. Please select your top 3 priorities near the shoreline, including in the existing park:
   Picnic tables
   - ___ Seating such as benches
   - ___ Playful seating (nets, swings, or sculpture)
   - ___ A naturally planted shoreline
   - ___ Rentable day-use lockers
   - ___ Picnic tables
   - ___ Non-motorized watercraft storage with an associated fee
   - ___ Other (Write in) _____

3. There is a historic Whaler Building at the shoreline near the Phase 1 Park. This building and associated new plaza create another space for gathering. The Whaler Building already houses a kayak rental vendor (REI) that is expected to remain. What else would you like to see in these buildings and space? Please rank each from 1-5 (with 5 being the most wanted).

	5	4	3	2	1
A "welcome station" to the park with maps of the area and a ranger providing information about programs and amenities					
Food or beverage vendor					
Beach amenity rentals (for example umbrellas or sand toys)					
Public space for small seasonal and multi-cultural gatherings					
A small museum of the history of the site					

Marina:



Proposed Marina improvements include reconfiguring the visitor and monthly moorage, guided by the 2010 Meydenbauer Bay Park and Land Use Plan. Adjustments to the 2010 proposal are needed to meet current codes and regulations. Influencing factors include the Department of Natural Resources Line of Navigability, the Nearshore Zone which defines the most ecologically sensitive area of the bay, and improving fish habitat.

4. Please check the following that apply to you:

— Own a motorized boat

— Rent motorized boats

— Own a paddleboard, kayak, or canoe

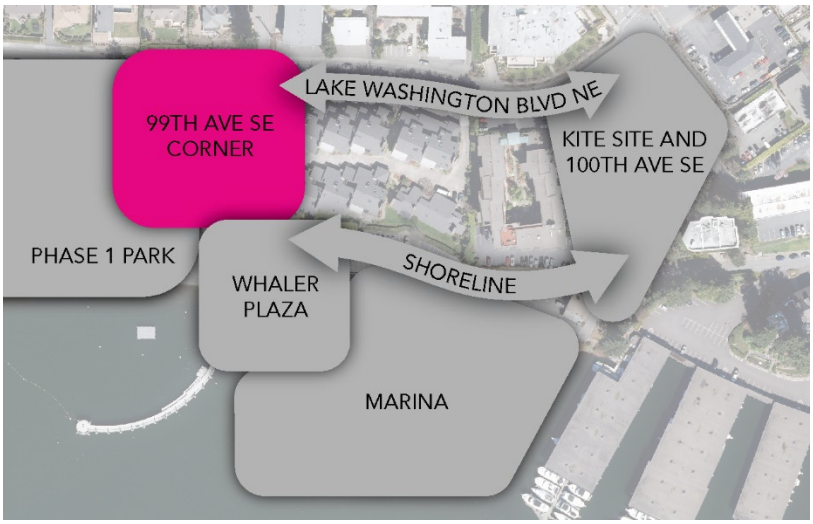
— Rent paddleboards, kayaks, or canoes

— None of the above

5. What are the most important future functions of this marina to you (pick up to 3)?

- ☐ Long term moorage of motorized boats
- ☐ Day use moorage for motorized boats
- ☐ Viewing wildlife
- ☐ Viewing open water
- ☐ Viewing boats
- ☐ Being able to walk along a pier
- ☐ Launching personal non-motorized watercraft
- ☐ Being able to rent non-motorized watercraft
- ☐ Other (write in) _____

99th Ave SE:



99th Ave SE continues to be the primary access for loading at the marina and beach. 99th Ave SE itself may remain as it is today, but the adjacent corner of the park has some options that we want your help prioritizing. Proposed 99th Ave SE improvements include the following options:

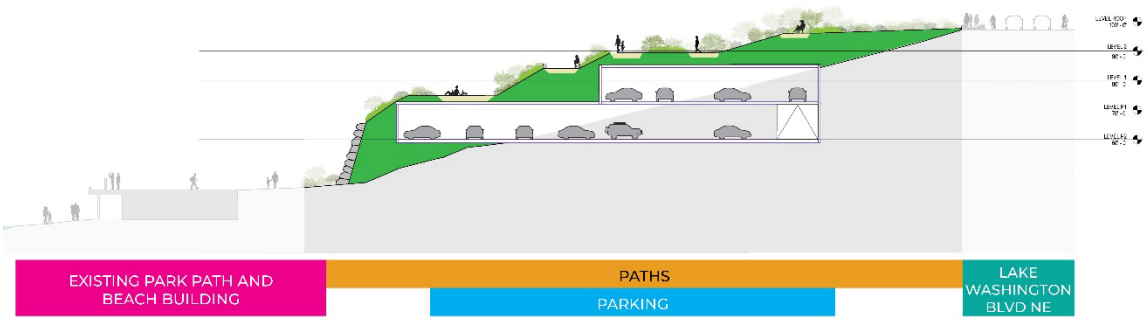
- Creating more accessible and less steep routes in the park
- Providing parking that is easier to find
- Offering more varied amenity spaces
- An activity building to support park programming and provide a space to enjoy the park during inclement weather

6. In addition to the 60-90 new parking stalls proposed at the Kite Site, there are different options for added parking off of 99th Ave SE, each with implications on type of access, amenity, cost, and carbon footprint.

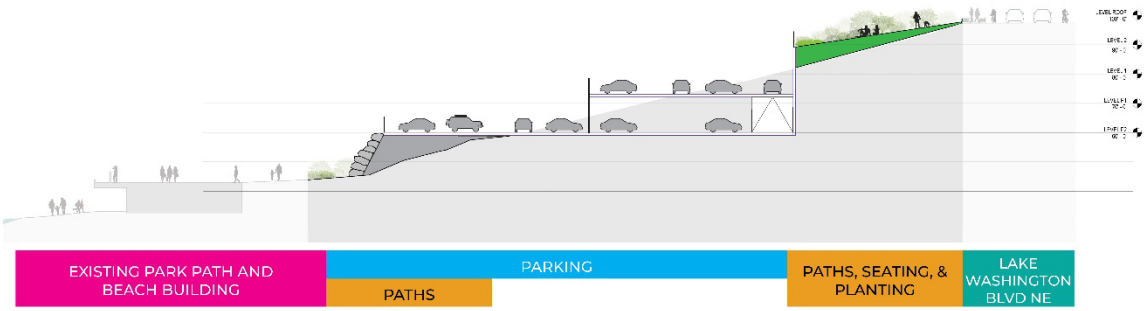
Option	Number of parking spaces	Cost	Carbon Footprint	Accessible access	Park Amenity Space
A: Covered parking garage with park space on top	Around 60	Very high	Significant	Either by elevator or ramp set into the hillside	Flat lawn areas, seating, and pathways. Paths would use stairs and gentle slopes.
B: Uncovered parking garage with small area for seating and paths at the corner of 99th Ave SE and Lake Washington Blvd NE	Around 60	Medium	Moderate	Either by elevator or ramp set into the hillside	Smaller space for seating areas and pathways. Paths would use stairs and gentle slopes.
C: No additional parking with seating and pathways set into the existing hillside	No additional ones added	Low	Minimal	None	Seating and pathways using existing grade. Paths would include stairs and gentle slopes.

Acknowledging other factors will weigh in for the final decision, which option do you prefer for the 99th parking (rank from most preferred to least preferred):

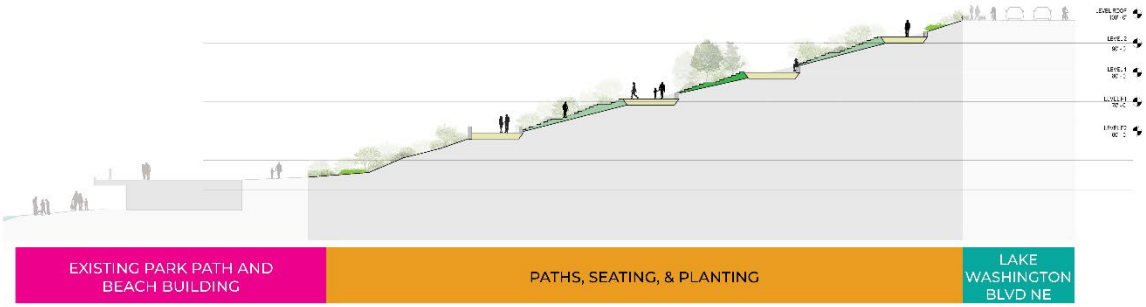
☐ A. Covered parking with park space on top



☐ B. Uncovered parking garage with small area for seating and paths at the corner of 99th Ave SE and Lake Washington Blvd NE



☐ C. No additional parking with seating and pathways set into the existing hillside

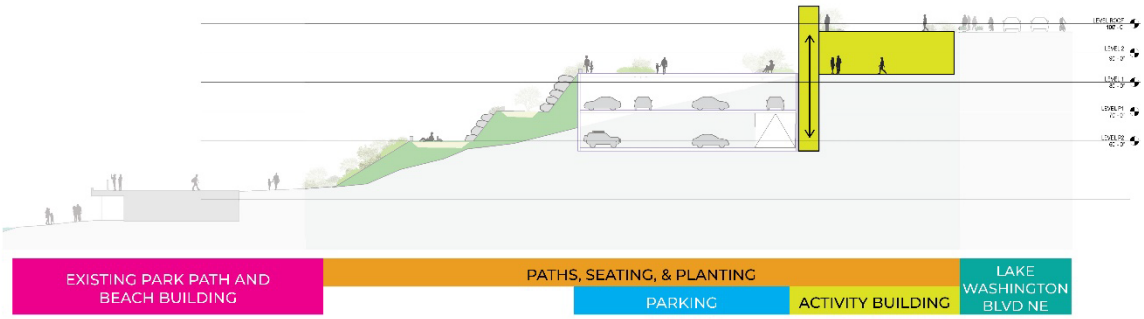


7. The 2010 Meydenbauer Bay Park and Land Use Plan indicated an activity building at the corner of 99th Ave SE and Lake WA Blvd. This activity building is to support park programming and provide a space to enjoy the park during inclement weather.

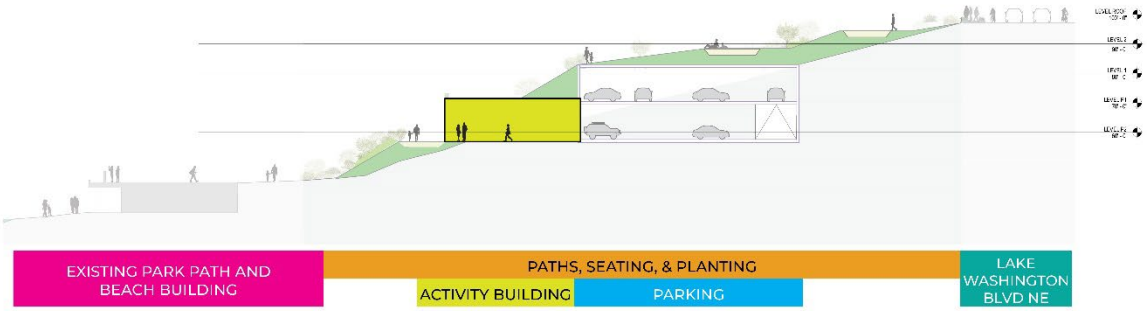
Option	Accessible Access to Park and Parking	Park Amenity Space
A: Near Lake Washington Blvd	Via an elevator and walkway through the garage	Plaza like spaces or larger grassy flat areas, paths.
B: Midway down 99th Ave SE	Park access via a ramp set into the existing hillside. Accessible parking would be on the same level in a new adjacent underground garage. An elevator is likely not required.	Larger grassy flat areas and paths
C: At the phase 1 park walkway	Accessible parking would be at the marina or in a new underground garage connected by a ramp set into the existing hillside.	Small seating areas and paths

What location do you prefer for this activity building:

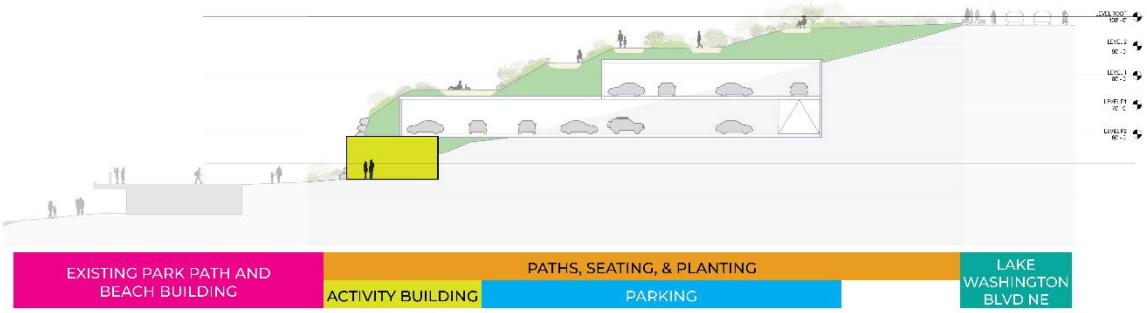
☐ Near Lake WA Blvd.



☐ Midway down 99th Ave SE



☐ At the phase 1 park walkway



☐ None of the above

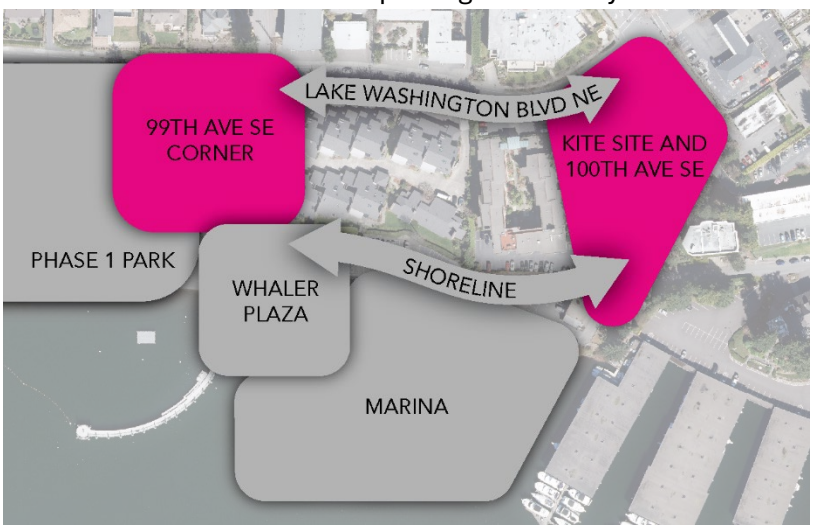
☐ No preference

8. What programming would you like to see take place in the 99th Ave SE Activity building? Please rank each from 1-5 (with 5 being the most wanted).

	5	4	3	2	1
Educational water-related classes					
Summer camp activities					
Public Restroom					
Public space for small seasonal and multi-cultural gatherings					
Unprogrammed gathering to enjoy the park during the hot, rainy, or smokey weather					
A rentable space for private gatherings					

Parking:

One of the priorities of the 2010 plan, and a top priority we heard in fall 2023, is parking. We have heard there needs to be more parking that is easy to find and universally accessible.



9. The existing marina parking lot will be removed and replaced with a pedestrian-centric experience and limited parking for ADA and unloading. Where would you prioritize new parking?
   - ☐ 100th Ave SE
   - ☐ 99th Ave SE
   - ☐ Both
   - ☐ Neither
   - ☐ Other (write in) _____

Overall prioritization:

10. Based on feasibility studies, costs and other factors, the park expansion construction will likely take place in phases. Help us prioritize what order to build things in. Please number from low (1) to high (5) priority:

	5	4	3	2	1
Kite Site park space, parking, and 100th Ave SE improvements					
99th Ave SE improvements activity building					
99th Ave SE improvements parking and park space					
Shoreline improvements					
Marina renovations					
Lake Washington Blvd pedestrian/bicycle improvements, including adding a sidewalk on the south side of the street connecting the Kite Site and Phase 1 Park					

11. Do you have any priorities that aren't reflected in this survey? (write in)

12. Please provide your email address if you'd like to be entered in a giveaway for a 2-hour kayak, canoe, or paddleboard experience from REI Boathouse at Meydenbauer Bay Park.
13. Would you also like to sign up for project email updates to follow along?
    - ☐ Yes
    - ☐ No
14. What neighborhood do you live in?
    - ☐ Bel Red
    - ☐ Bridle Trails
    - ☐ Crossroads
    - ☐ Cougar Mountain/Lakemont
    - ☐ Downtown Bellevue
    - ☐ Eastgate
    - ☐ Factoria
    - ☐ Lake Hills
    - ☐ NE Bellevue
    - ☐ Newport
    - ☐ NW Bellevue
    - ☐ Somerset
    - ☐ West Bellevue
    - ☐ West Lake Sammamish
    - ☐ Wilburton
    - ☐ Woodridge

- ☐ I do not live in Bellevue, but work in Bellevue
- ☐ I do not live or work in Bellevue
- ☐ I do not know what neighborhood area I live in
- ☐ Prefer not to answer

15. What is your age?
    - ☐ Under 18
    - ☐ 18-44 years old
    - ☐ 45-64 years old
    - ☐ 65 or older
    - ☐ Prefer not to answer
16. Do you have a disability?
    - ☐ Yes
    - ☐ No
    - ☐ Prefer not to answer
17. What is your race/ethnicity? (choose all that apply)
    - ☐ American Indian or Alaskan Native
    - ☐ Asian
    - ☐ Black/African American
    - ☐ Hispanic, Latino, or Spanish origin
    - ☐ Native Hawaiian or Pacific Islander
    - ☐ White
    - ☐ Two or More Races
    - ☐ Prefer not to answer
    - ☐ Not Listed (please specify) _____
18. Languages spoken at home: (choose all that apply)
    - ☐ American Sign Language (ASL)
    - ☐ Chinese - Cantonese
    - ☐ Chinese - Mandarin

- ☐ English
- ☐ French
- ☐ German
- ☐ Hindi
- ☐ Japanese
- ☐ Korean
- ☐ Russian
- ☐ Spanish
- ☐ Tamil
- ☐ Tegulu
- ☐ Urdu
- ☐ Vietnamese
- ☐ Prefer not to answer
- ☐ Not Listed (Please Specify) _____

19. Do you rent or own your current address?
    - ☐ Rent
    - ☐ Own
    - ☐ Living with parents/grandparents/guardian/family
    - ☐ Living with friends
    - ☐ Currently without housing
    - ☐ Prefer not to answer
    - ☐ Not Listed (Please Specify) _____
20. What type of housing do you live in?
    - ☐ Single-Family House
    - ☐ Apartment, Condominium or Townhome
    - ☐ Prefer not to answer
    - ☐ Not Listed (Please Specify) _____
21. Gender identity (choose all that apply)

- ☐ Female
- ☐ Gender Neutral
- ☐ Intersex
- ☐ Male
- ☐ Queer
- ☐ Trans
- ☐ Prefer not to answer
- ☐ Not Listed (Please Specify) _____

22. Please choose the sexual orientation you consider yourself to be.

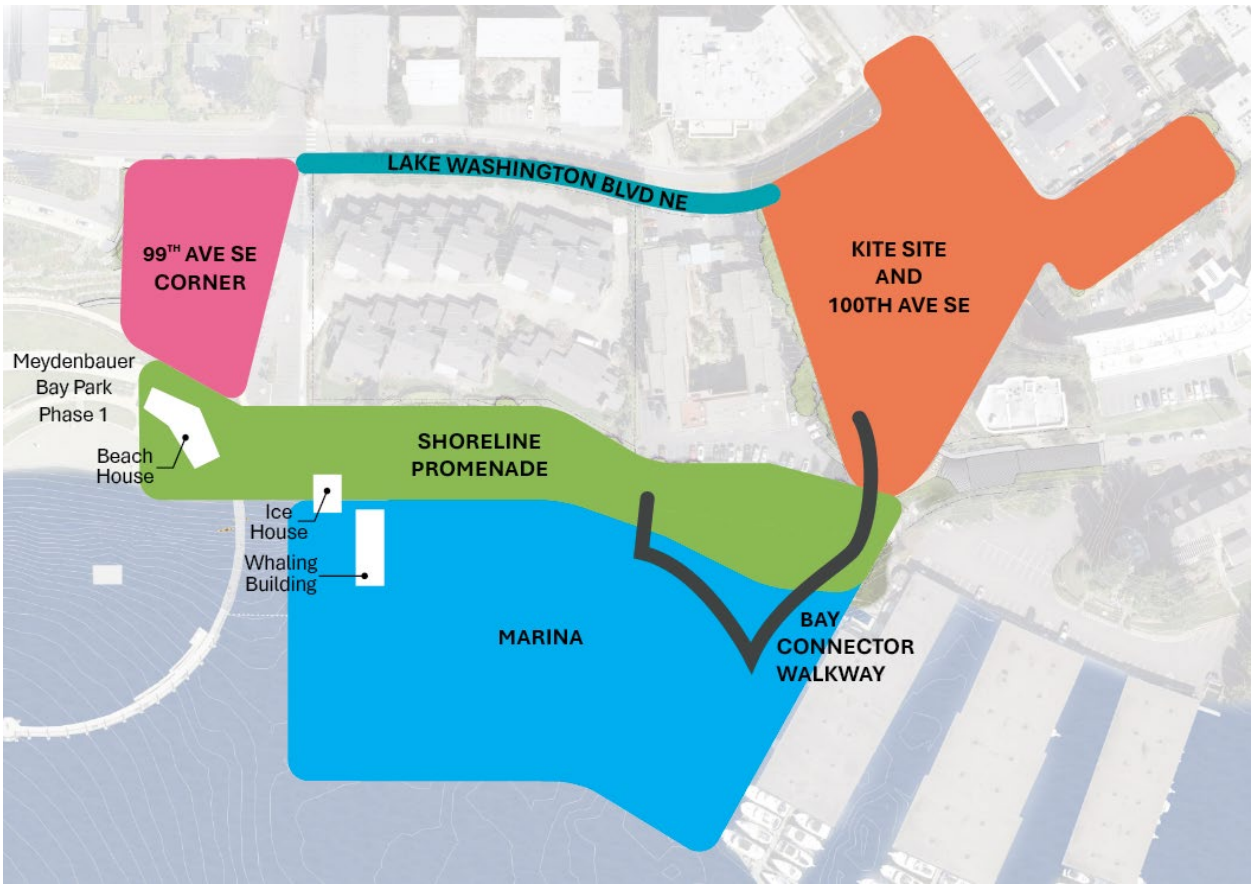
- ☐ Asexual
- ☐ Bisexual
- ☐ Gay
- ☐ Lesbian
- ☐ Queer
- ☐ Straight
- ☐ Two or More of the Above Choices
- ☐ Prefer Not to Answer
- ☐ Not Listed (Please Specify) _____

Meydenbauer Bay Park Expansion: Survey #3, Winter 2024

The goal of the Meydenbauer Bay Park expansion is to create enhanced connections between Bellevue's downtown, the waterfront, and the existing park. This project is guided by the 2010 Park and Land Use Plan and planning and implementation principles, the current budget and permitting realities, and community feedback collected over the past two years.

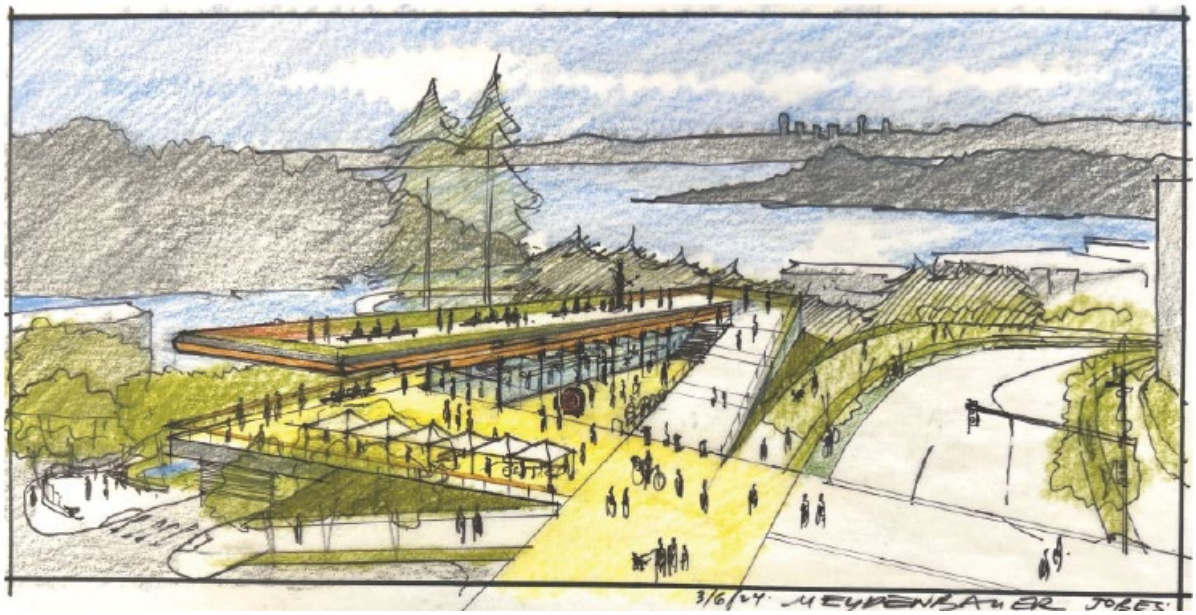
This survey explores the full expansion area. Construction will take place in phases based on city priorities and feasibility. Considering previous community feedback, the Kite Site and 100th Ave SE area is the initial focus for the next phase of construction.

Explore the Phase 2 park expansion areas.



Alt-text: A map of the Meydenbauer Bay Park expansion areas, which include 99th Avenue Southeast, Shoreline Promenade, Marina, Lake Washington Boulevard Northeast, and Kite Site and 100th Ave SE. The Bay Connector walkway will connect the Kite Site and Shoreline Promenade with sloped paths.

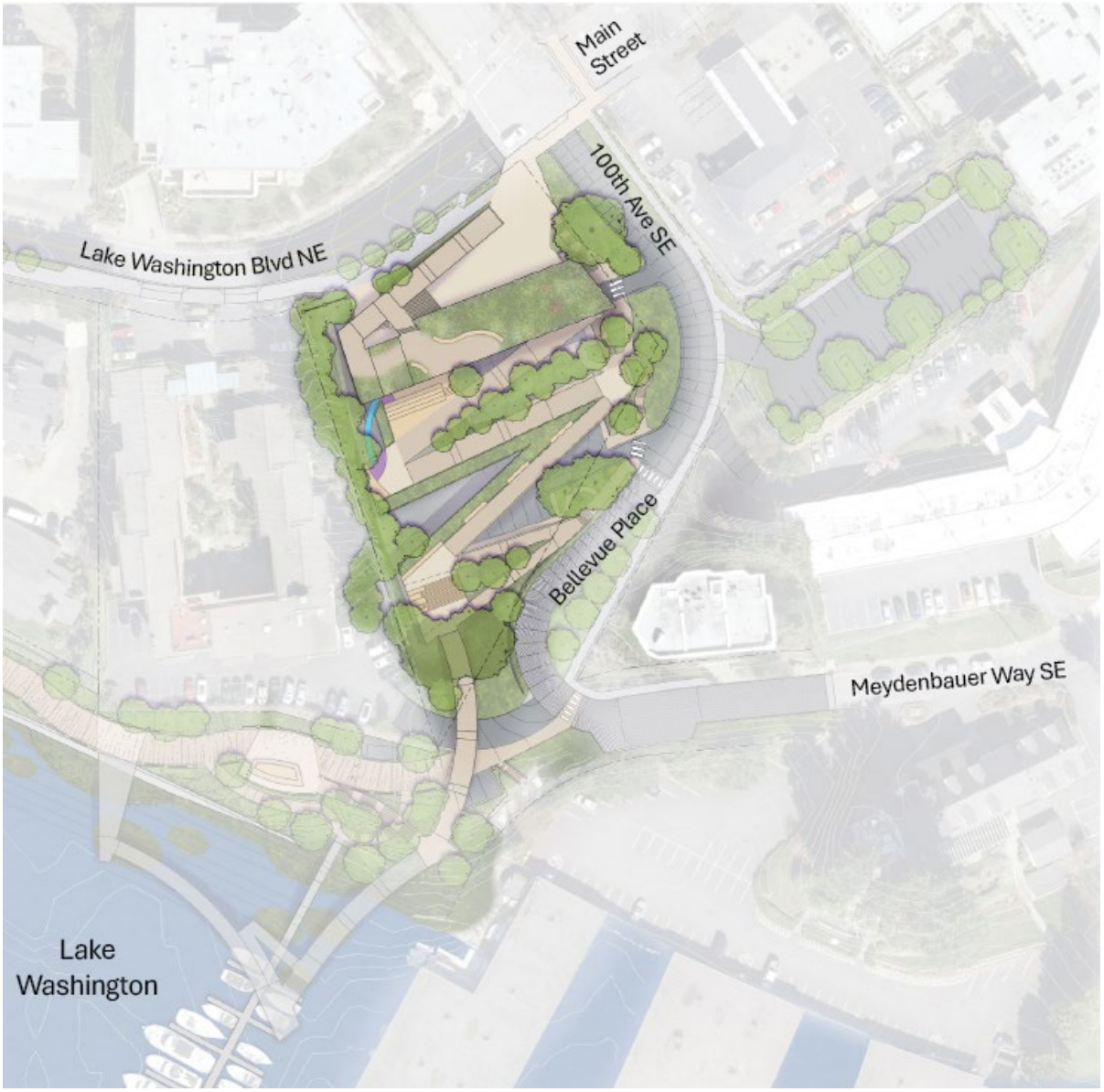
1. **Kite Site**



The Kite Site pavilion and plaza at the corner of Main Street and 100th Ave SE

The Kite Site connects Main Street all the way down to Lake Washington. Improvements include:

- Paths down to Meydenbauer Bay with seating and natural landscaping.
- Easy-to-access parking off of 100th Ave SE underneath the paths.
- A pavilion and plaza at the corner of Main Street and 100th Ave SE offering a weather-protected community space, iconic viewpoints, and areas for vendors.
- Additional amenities such as play elements and a water feature.



The Kite Site design includes a pavilion and plaza with parking below the walking paths.

Alt-text: A bird's eye view of the Meydenbauer Bay Park expansion of the kite-shaped area called the Kite Site. At the top of the site off of Lake Washington Boulevard Northeast and 100th Avenue Southeast, there is a pavillion and plaza space. Below the plaza area, trees and shrubs surround a switchback path sloping down towards Lake Washington.

How satisfied are you with the proposed Kite Site design?
Dissatisfied, Somewhat Dissatisfied, Neutral, Somewhat Satisfied, Satisfied
Optional for participants: Please elaborate on why you selected this option.

2. **100th Ave SE**

We heard from the community that pedestrian safety and maintaining vehicle access to 100th Ave SE are key priorities. The updated concept keeps 100th Ave SE / Bellevue Place open to two-way traffic with added traffic calming measures, including narrowing the street and adding crosswalks.

100th Ave SE and Bellevue Place remain open to two-way traffic with traffic calming measures and connections to the expanded park and surrounding neighborhood.

Alt-text: A map of the two-way street layout of 100th Ave SE and Bellevue Place, located northeast of the current Meydenbauer Bay Park.

How satisfied are you with the proposed design of 100th Ave SE / Bellevue Place?
Dissatisfied, Somewhat dissatisfied, Neutral, Somewhat satisfied, Dissatisfied
Optional for participants: Please elaborate on why you selected this option

3. **Park corner at 99th Ave SE**

   The park corner at 99th Ave SE is re-envisioned with stairs and paths for easier pedestrian access down the hill. Improvements include adding more play and recreational elements, seating, and shade. No enclosed building or additional parking is proposed at this time.

The expanded park corner at 99th Ave SE offers opportunity for new amenities.

Alt-text:

A diagram of the 99th Avenue Southeast park corner showing the addition of seating, shade, stairs, pathways, and play elements.

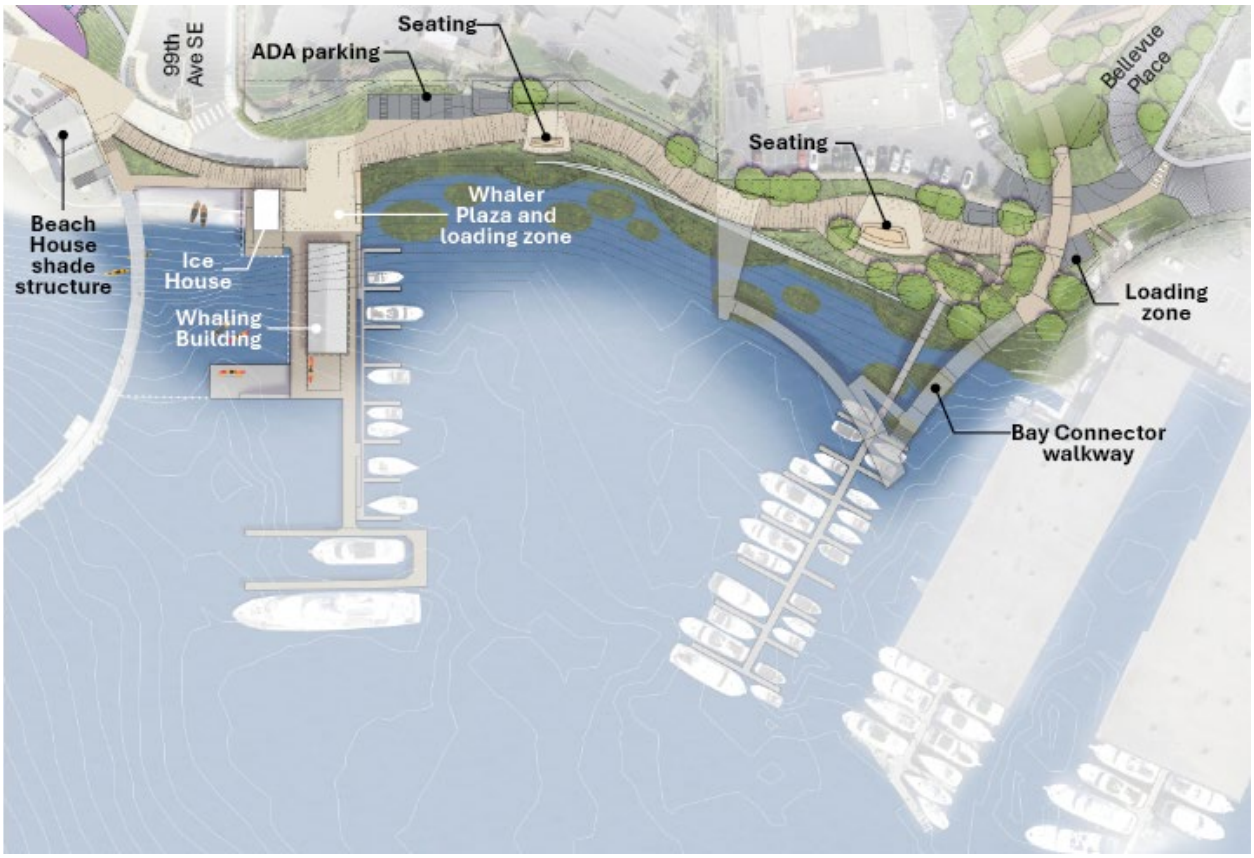
How satisfied are you with the proposed design at the corner of 99th Ave SE?
Dissatisfied, Somewhat dissatisfied, Neutral, Somewhat satisfied, Satisfied

Optional for participants: Please elaborate on why you selected this option.

4. **Shoreline Promenade**

The Shoreline Promenade improvements include:

- A new pedestrian pathway that includes seating, shade, planting, and lighting.
- A re-envisioned Ice House, also known as the caretaker's house, to better connect to the existing park.
- A new plaza space celebrating the preserved and historic Whaling Building.
- A new shade structure at the Beach House.
- Loading areas at the bottom of 99th Ave SE and 100th Ave SE.



The completed Shoreline Promenade will create a new Downtown Bellevue waterfront experience.

Alt-text: A bird's eye view of the Shoreline Promenade and surrounding Park. The promenade runs from near Bellevue Place to 99th Ave SE along the water. There is also a Bay Connector walkway that bridges the promenade to the marina.

How satisfied are you with the proposed Shoreline Promenade design?
Dissatisfied, Somewhat dissatisfied, Neutral, Somewhat satisfied, Satisfied
Optional for participants: Please elaborate on why you selected this option

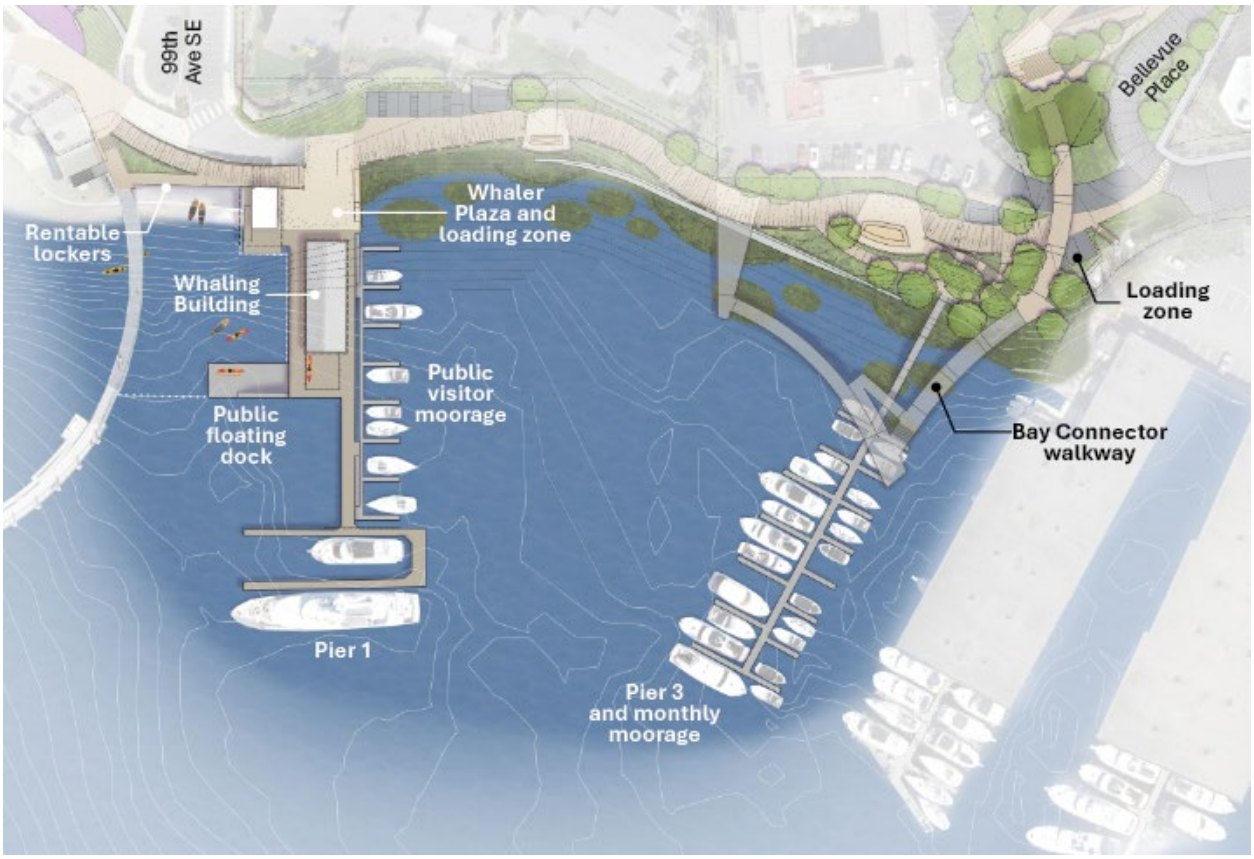
5. **Marina and Bay Connector**

A rendering of the 'Bay Connector' walkway and Shoreline Promenade. Pier 3 of the Meydenbauer Bay Park Marina runs underneath the Bay Connector and connects to the promenade.

Alt-text: A wood-paneled walkway, the Bay Connector, floats over the water. The walkway features ramps and seating. Boats are docked at the pier with sailboats moving across Lake Washington.

The Marina and Bay Connector balances maritime heritage with the need for more accessible and sustainable waterfront experiences. Improvements include:

- A sloped walkway, the Bay Connector, providing access from the Kite Site to the Shoreline Promenade.
- Removing one pier of monthly moorage slips (the existing Pier 2) to create more visual access to the water, and retaining one pier of monthly moorage (a renovated Pier 3).
- More public access to the Whaling Building pier (Pier 1), including relocating the public visitor moorage.
- Adding new amenities for personal non-motorized watercraft such as a floating dock, air pumps and locker access.



The reconfigured Marina will provide more pedestrian walkways and public dock access, scenic views, and maintain monthly moorage at Pier 3.

Alt-text: The Marina Diagram shows Pier 3 remaining in place and connecting to the Bay Connector walkway. The Bay Connector leads into the Shoreline Promenade and a loading zone. Pier 1, behind the Whaling Building, includes public floating dock and visitor moorage.

How satisfied are you with the proposed design of the Marina and Bay Connector?
Dissatisfied, Somewhat dissatisfied, Neutral, Somewhat satisfied, Satisfied
Optional for participants: P lease elaborate on why you selected this option

6. Do you have any additional comments to share?

7. Would you like to opt into the raffle for a free Bellevue Downtown Ice Rink experience?
   If yes, logic question to share email: Please share your email:
   If yes, logic question to sign up for email-list: Would you like to sign up for our email list for project updates?

Thank you for completing the survey. If you entered your email for the giveaway, the winners of the Bellevue Downtown Ice Rink experience, courtesy of Bellevue Downtown Association, will receive an email the week of December 16. The winners will need to reply to the email with mailing or pickup information in order to claim the tickets. Your input helps us create the future design of Meydenbauer Bay Park.