APPENDIX G Bike Parking Analysis Report



EXECUTIVE SUMMARY

The New Mobility Team conducted a study of free-floating bike share parking compliance within Seattle between October and December 2017. Of 368 bikes catalogued, 70% fully complied with the parking requirements in the pilot permit requirements. Most of the remaining bikes were technically noncompliant but not an obstruction hazard (26%); we observed that 4% of devices created an obstruction hazard. Most bikes assessed as partially or wholly noncompliant did not leave the requisite 6 feet of pedestrian clearance. None of the sampled bikes were parked in the roadway nor on private property. Most noncompliant bikes were found in survey areas that featured single-family zoning where the width of most sidewalks is less than 10 feet. Photographs captured during the study display a user tendency to park shared bikes near other shared bikes.

STUDY METHODS

During the first three months of the pilot, 44 of the 117 emails we received on the program described incorrectly parked bikes and potential obstruction hazards. In response to this input, a parking evaluation study was devised to investigate the severity of rider noncompliance with parking requirements. A standardized survey instrument was developed to assign a color grade of green (fully compliant), yellow, red, or black (severe obstruction hazard) to bikes parked in seven distinct neighborhoods across the city. The communities selected are a cross-section of Seattle's diverse zoning and street typographies. The survey areas feature single family, mixed commercial, and neighborhood commercial zoning- in addition to low-, mid-, and high-rise multifamily zoning types.



Figure 1. Map of the parking study areas.

ZONING DESIGNATIONS

The various zoning types found within the boundaries of each survey zone have been condensed into their base zoning designations. We found the most bikes in commercial and industrial areas within the survey neighborhoods.

		Low Rise	Single Family	Mixed
Commercial	Industrial	Residential	Residential	Commercial
137	104	24	32	71

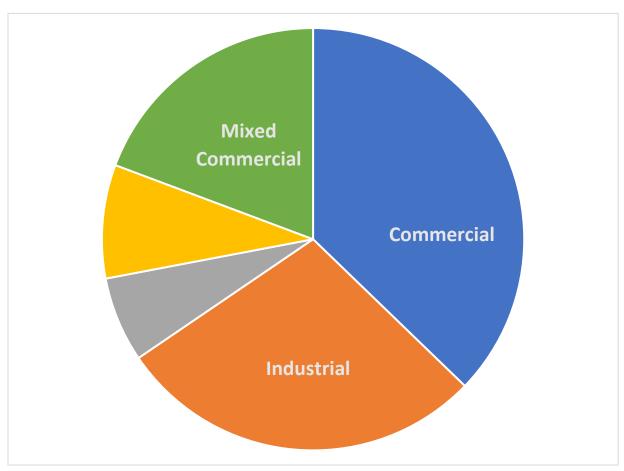
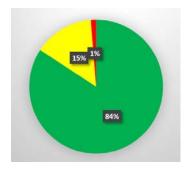


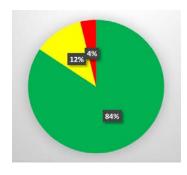
Figure 2. Sampled bikes by land use zone category.

PARKING COMPLIANCE BY ZONE

Commercial Zones

Areas zoned for neighborhood commercial (NC) are typically pedestrianoriented, directly correlating with a high parking compliance rate. Wide sidewalks and privately-owned public plazas are ideal for parking shared bikes in an unobstructed manner. Noncompliant bikes were typically found in frontage zones, where they occasionally blocked building entrances.



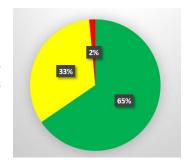


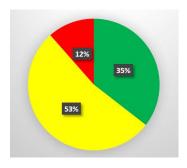
Industrial Zones

Industrial zones included in this survey were in bike-friendly neighborhoods (Ballard and Fremont), which correlates with a high parking compliance rate because of the ample bicycle infrastructure. A large percentage of the bicycles in industrial zones were those along the Waterfront, which features wide sidewalks. Noncompliant bikes were typically located along the frontage zone of a building.

Low Rise Residential Zones

The Low Rise residential properties throughout the city are often located in neighborhoods that have been developed or redeveloped recently. These areas often feature sidewalks wide enough to accommodate shared bike parking.



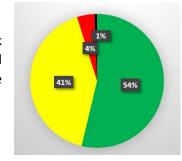


Single-Family Residential Zones

Single Family Residential zoning presents the largest hurdle for shared bike parking in Seattle. Many of these housing developments do not feature sidewalks and when they do, the pedestrian space is very narrow. Even though shared bike users may make an effort to park in logical locations, the lack of parking infrastructure makes it difficult to locate good spots.

Mixed Commercial Zones

Mixed Commercial zones are typically pedestrian-oriented, but sidewalk widths vary in these zones. Many of the noncompliant bikes were parked on narrow sidewalks (such as those in Pioneer Square) or along the frontage zone of a building.



DATA BREAKDOWN (BY NEIGHBORHOOD)

Pioneer Square (10/16) – 33 Survey Submissions / 43 Bicycles Total

Time of Day: 12 p.m. to 1:30 p.m.

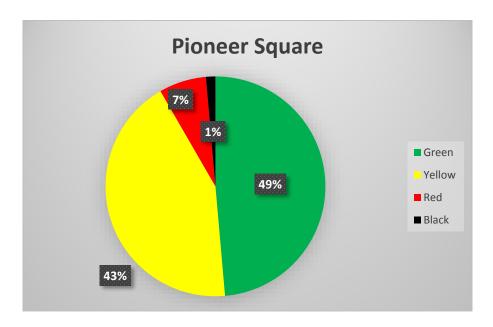
Zoning Designations:

- Pioneer Square Mixed Commercial 17 Bikes
 - o (PSM 100/100-120)
- International District Residential/Commercial 13 Bikes
 - o (IDR/C 125/150-270)
- International District Residential 7 Bikes
 - o (IDR 45/125-270, IDR 170)
- **Downtown Mixed Commercial –** 6 Bikes
 - o (DMC 340/290-440)

Findings: Sidewalk width has the largest impact on shared bike parking compliance in neighborhoods citywide. Due to its age, sidewalks in Pioneer Square are narrower than those in neighborhoods with similar zoning designations. Users had parked the shared bikes in permit compliant areas of the sidewalk (furniture zones, along bike racks, etc.), but the sidewalk was simply too narrow to accommodate both a bike and six feet of pedestrian clearance. Field observation revealed many bikes parked in the frontage zones of buildings, at times partially blocking entrances. One bike was parked directly in front of a curb cut, making Pioneer Square one of two neighborhoods with a bike in the 'Black' color grade.



Overall Parking Breakdown (by bicycle):



Submission Breakdown (by response):

Question 1: Is the bike parked in a rack or designated parking area?

- 1. Yes, in a bike rack (1 submission)
- 2. Yes (3 submissions)
- 3. Yes, in a designated parking area (22 submissions)
- 4. No, but parked within 6 ft. of a designated parking area
- 5. No (7 submissions)

Question 2: Parked perfectly? (If yes, skip to zombie bike section)

- 1. Yes (23 submissions)
- 2. No (10 submissions)

Question 3: What kind of place is the bike parked?

- 1. Sidewalk Furniture Zone ROW (15 submissions)
- 2. Sidewalk Through Zone ROW (9 submissions)
- 3. Sidewalk Frontage Zone ROW (13 submissions)
- 4. Sidewalk Corner ROW (2 submissions)
- 5. Private Property (1 submission)
- 6. Publicly owned park or plaza (2 submissions)
- 7. Bike in train passage (1 submission)

Question 4: Bike Disposition

- 1. Bike is tipped over (1 submission)
- 2. Bike is damaged (2 submission)

- 3. Bike leaves less than 6 Ft. of pedestrian clearance (4 submissions)
- 4. Bike blocking pedestrian entrance/exit of adjacent buildings/property
- 5. Bike on corner, inside edge
- 6. Bike on corner, outside edge
- 7. Bike on corner, middle
- 8. Bike on pedestrian curb ramp
- 9. Bike on driveway/curb cut (1 submission)
- 10. Bike blocks street traffic
- 11. Bike overhangs curb
- 12. Bike blocking newsbox
- 13. Bike blocking parking pay station (or similar kiosk e.g. ferry pay station) (1 submission)
- 14. Bike within 5 feet of hydrant
- 15. Bike in handicapped parked zone (blue curb)
- 16. Bike in loading zone (white or yellow curb) (1 submission)
- 17. Bike in bus/transit stop
- 18. Bike blocks car parking space (1 submission)

Question 5: Bike visibility

- 1. Bike is visible from ROW (30 submissions)
- 2. Bike is not visible from ROW (2 submissions)

Question 6: Is the bike accessible to the next user?

- 1. Easily accessible (29 submissions)
- 2. Somewhat accessible (1 submission)
- 3. Not accessible (1 submission)

Question 7: Does this appear to be a 'zombie bike'?

- 1. Yes
- 2. No (32 submissions)
- 3. Maybe (1 submission)

- 1. Yes
- 2. No (33 submissions)

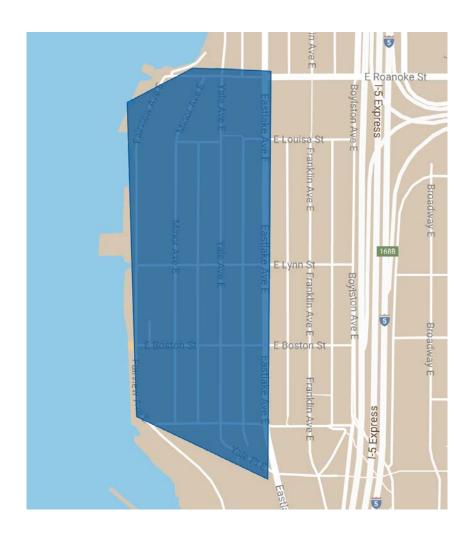
Eastlake (12/04) – 23 Survey Submissions / 30 Bicycles

Time of Day: 3:45 p.m. to 4:30 p.m.

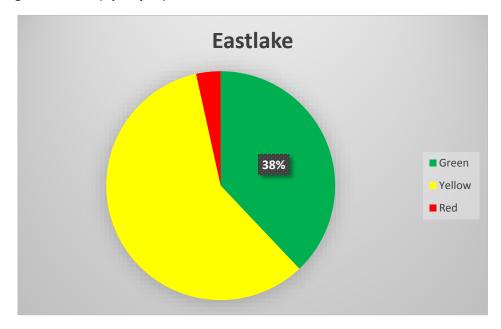
Zoning Designations:

- Single Family 16 Bikes
 - o (SF 5000)
- Low Rise 12 Bikes
 - o (LR2, LR3)
- Commercial 2 Bikes
 - o (C1)

Findings: In addition to narrow sidewalks throughout the SF5000 zoned blocks in Eastlake, much of the roadway close to the water front was completely lacking sidewalks. User behavior was similar to that of Pioneer Square: riders appeared to park in areas that they believed would minimize pedestrian access obstructions, even though there was insufficient sidewalk space to park bikes. Some bikes were found in private parking lots, earning them a 'Yellow' color grade.



Overall Parking Breakdown (by bicycle):



Submission Breakdown (by response):

Question 1: Is the bike parked in a rack or designated parking area?

- 1. Yes, in bike rack (3 submissions)
- 2. Yes (1 submissions)
- 3. Yes, in designated bike parking area
- 4. No, but parked within 6 feet of bike rack or designated parking area
- 5. No (19 submissions)

Question 2: Parked perfectly? (If yes, skip to the zombie bike section)

- 1. Yes (14 submissions)
- 2. No (9 submissions)

Question 3: What kind of place is the bike parked?

- 1. Sidewalk furniture zone (ROW) (8 submissions)
- 2. Sidewalk through zone (ROW)
- 3. Sidewalk frontage zone (ROW) (3 submissions)
- 4. Sidewalk corner (ROW) (5 submissions)
- 5. Shoulder where sidewalk absent (ROW)
- 6. Median (ROW)
- 7. Vehicle parking lane (ROW)

- 8. Vehicle travel lane (ROW)
- 9. Private property, limited access (including front lawns) (5 submissions)
- 10. Parking lot or structure (open to the public) (8 submissions)
- 11. Privately-owned public open space (1 submission)
- 12. Publicly-owned park or plaza (1 submission)

Question 4: Check all that apply:

- 1. Bike is tipped over
- 2. Bike is damaged (get bike number)
- 3. Bike impedes pedestrian flow (leaves less than 6 feet pedestrian clearance)
- 4. Bike impedes pedestrian flow but leaves 6+ feet clearance (e.g. bike in the middle of wide through zone)
- 5. Bike blocking pedestrian entrance/exit of adjacent buildings/property
- 6. Bike on corner, inside edge
- 7. Bike on corner, outside edge (5 submissions)
- 8. Bike on corner, middle
- 9. Bike on pedestrian curb ramp
- 10. Bike on driveway/curb cut (4 submissions)
- 11. Bike blocks street traffic
- 12. Bike overhangs curb
- 13. Bike blocking newsbox
- 14. Bike blocking parking pay station (or similar kiosk e.g. ferry pay station)
- 15. Bike within 5 feet of hydrant
- 16. Bike in handicapped parked zone (blue curb)
- 17. Bike in loading zone (white or yellow curb)
- 18. Bike in bus/transit stop
- 19. Bike blocks car parking space

Question 5: Bike visibility

- 1. Bike is visible from ROW (18 submissions)
- 2. Bike is not visible from ROW (3 submissions)

Question 6: Is the bike accessible to the next user?

- 1. Easily accessible (e.g. parked on street level) (21 submissions)
- 2. Somewhat accessible (e.g. user must lift bike down from ledge, take stairs/elevator to street level, etc.) (1 submission)
- 3. Not accessible (e.g. behind locked gate, dangling from overhead wire, thrown into water way, perched on Fremont Troll)

Question 7: Does this appear to be a 'zombie bike'?

- 1. Yes
- 2. No (21 submissions)
- 3. Maybe

- 1. Yes
- 2. No (21 submissions)

Ballard (11/08) – 50 Survey Submissions / 78 Bicycles Total

Time of Day: 1 p.m. to 2 p.m.

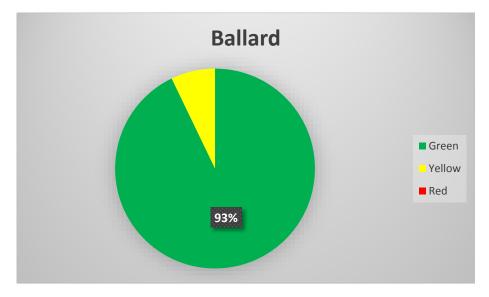
Zoning Designations:

- Neighborhood Commercial 27 Bikes
 - o (NC3-65, NC3P-65, NC2P-65)
- Commercial 24 Bikes
 - o (C1-65, C2-65)
- Industrial 15 Bikes
 - o (IC-65)
- Low Rise 12 Bikes
 - o (LR3)

Findings: With the wide sidewalks along NW Market St and the wealth of bike racks in the landmark district, Ballard had a very high parking compliance rate. Users seemed inclined to park their shared bikes in groups, effectively self-organizing idle bikes within the pedestrian ROW along Shilshole Ave NW and NW Market St.



Overall Parking Breakdown (by bicycle):



Submission Breakdown (by response):

Question 1: Is the bike parked in a rack or designated parking area?

- 1. Yes, in bike rack (14 submissions)
- 2. Yes
- 3. Yes, in designated bike parking area (5 submissions)
- 4. No, but parked within 6 feet of bike rack or designated parking area (6 submissions)
- 5. No (25 submissions)

Question 2: Parked perfectly? (If yes, skip to the zombie bike section)

- 6. Yes (47 submissions)
- 7. No (6 submissions)

Question 3: What kind of place is the bike parked?

- 1. Sidewalk furniture zone (ROW) (28 submissions)
- 2. Sidewalk through zone (ROW)
- 3. Sidewalk frontage zone (ROW) (5 submissions)
- 4. Sidewalk corner (ROW)
- 5. Shoulder where sidewalk absent (ROW)
- 6. Median (ROW)
- 7. Vehicle parking lane (ROW)
- 8. Vehicle travel lane (ROW)
- 9. Private property, limited access (including front lawns)
- 10. Parking lot or structure (open to the public)
- 11. Privately-owned public open space
- 12. Publicly-owned park or plaza (6 submissions)

Question 4: Check all that apply:

- 1. Bike is tipped over
- 2. Bike is damaged (get bike number)
- 3. Bike impedes pedestrian flow (leaves less than 6 feet pedestrian clearance) (1 submission)
- 4. Bike impedes pedestrian flow but leaves 6+ feet clearance (e.g. bike in the middle of wide through zone)
- 5. Bike blocking pedestrian entrance/exit of adjacent buildings/property
- 6. Bike on corner, inside edge
- 7. Bike on corner, outside edge (1 submission)
- 8. Bike on corner, middle
- 9. Bike on pedestrian curb ramp
- 10. Bike on driveway/curb cut
- 11. Bike blocks street traffic
- 12. Bike overhangs curb
- 13. Bike blocking newsbox
- 14. Bike blocking parking pay station (or similar kiosk e.g. ferry pay station)
- 15. Bike within 5 feet of hydrant
- 16. Bike in handicapped parked zone (blue curb)
- 17. Bike in loading zone (white or yellow curb) (1 submission)
- 18. Bike in bus/transit stop
- 19. Bike blocks car parking space

Question 5: Bike visibility

- 1. Bike is visible from ROW (50 submissions)
- 2. Bike is not visible from ROW

Question 6: Is the bike accessible to the next user?

- 1. Easily accessible (e.g. parked on street level) (50 submissions)
- 2. Somewhat accessible (e.g. user must lift bike down from ledge, take stairs/elevator to street level, etc.)
- 3. Not accessible (e.g. behind locked gate, dangling from overhead wire, thrown into water way, perched on Fremont Troll)

Question 7: Does this appear to be a 'zombie bike'?

- 1. Yes
- 2. No (50 submissions)
- 3. Maybe

- 1. Yes
- 2. No (50 submissions)

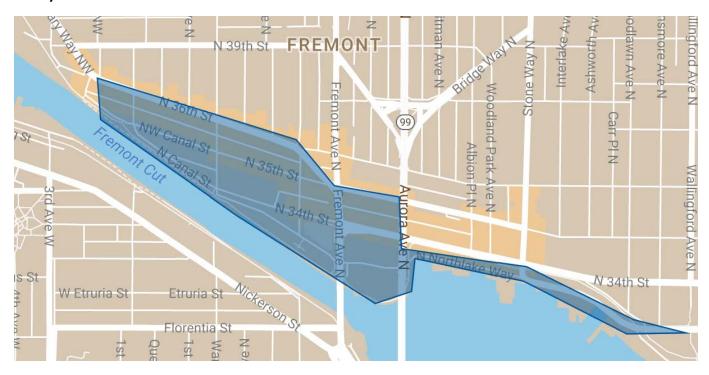
Fremont (11/20) – 39 Survey Submissions / 120 Bicycles

Time of Day: 11 a.m. to 12:30 p.m.

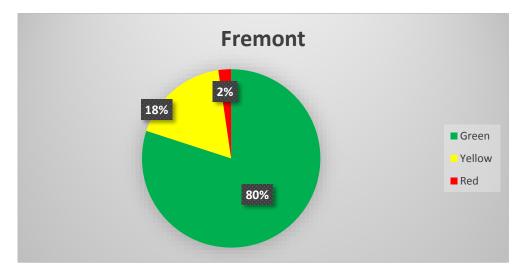
Zoning Designations:

- Industrial 36 Bikes
 - o (IC-65, IBU-46, IBU-65, IG2 U/65)
- Commercial 84 Bikes
 - o (NC3P-65, NC2P-40)

Findings: There are many bike-friendly businesses and routes (Burke Gilman Trail, N 34th St PBL) in Fremont, making it a popular bike share neighborhood. Luckily, there is plenty of existing bike storage infrastructure and adequate sidewalk width throughout the neighborhood. Most of the bikes that received a 'Yellow' color grade were located on narrower stretches of the Burke Gilman trail, especially at the intersection of N Northlake Way and N 34th St.



Overall Parking Breakdown:



Submission Breakdown (by response):

Question 1: Is the bike parked in a rack or designated parking area?

- 1. Yes, in bike rack (9 submissions)
- 2. Yes (7 submissions)
- 3. Yes, in designated bike parking area
- 4. No, but parked within 6 feet of bike rack or designated parking area (1 submission)
- 5. No (22 submissions)

Question 2: Parked perfectly? (If yes, skip to the zombie bike section)

- 1. Yes (25 submissions)
- 2. No (14 submissions)

Question 3: What kind of place is the bike parked?

- 1. Sidewalk furniture zone (ROW) (19 submissions)
- 2. Sidewalk through zone (ROW)
- 3. Sidewalk frontage zone (ROW) (14 submissions)
- 4. Sidewalk corner (ROW) (1 submission)
- 5. Shoulder where sidewalk absent (ROW)
- 6. Median (ROW)
- 7. Vehicle parking lane (ROW)
- 8. Vehicle travel lane (ROW)
- 9. Private property, limited access (including front lawns)
- 10. Parking lot or structure (open to the public)
- 11. Privately-owned public open space
- 12. Publicly-owned park or plaza

Question 4: Check all that apply:

- 1. Bike is tipped over (1 submission)
- 2. Bike is damaged (get bike number)
- 3. Bike impedes pedestrian flow (leaves less than 6 feet pedestrian clearance)
- 4. Bike impedes pedestrian flow but leaves 6+ feet clearance (e.g. bike in the middle of wide through zone) (1 submission)
- 5. Bike blocking pedestrian entrance/exit of adjacent buildings/property
- 6. Bike on corner, inside edge
- 7. Bike on corner, outside edge (1 submission)
- 8. Bike on corner, middle
- 9. Bike on pedestrian curb ramp
- 10. Bike on driveway/curb cut
- 11. Bike blocks street traffic
- 12. Bike overhangs curb
- 13. Bike blocking newsbox
- 14. Bike blocking parking pay station (or similar kiosk e.g. ferry pay station)
- 15. Bike within 5 feet of hydrant (1 submission)
- 16. Bike in handicapped parked zone (blue curb)
- 17. Bike in loading zone (white or yellow curb)
- 18. Bike in bus/transit stop
- 19. Bike blocks car parking space

Question 5: Bike visibility

- 1. Bike is visible from ROW (39 submissions)
- 2. Bike is not visible from ROW

Question 6: Is the bike accessible to the next user?

- 1. Easily accessible (e.g. parked on street level) (38 submissions)
- 2. Somewhat accessible (e.g. user must lift bike down from ledge, take stairs/elevator to street level, etc.) (1 submission)
- 3. Not accessible (e.g. behind locked gate, dangling from overhead wire, thrown into water way, perched on Fremont Troll)

Question 7: Does this appear to be a 'zombie bike'?

- 1. Yes (1 submission)
- 2. No (38 submissions)
- 3. Maybe

- 1. Yes (1 submission)
- 2. No (38 submissions)

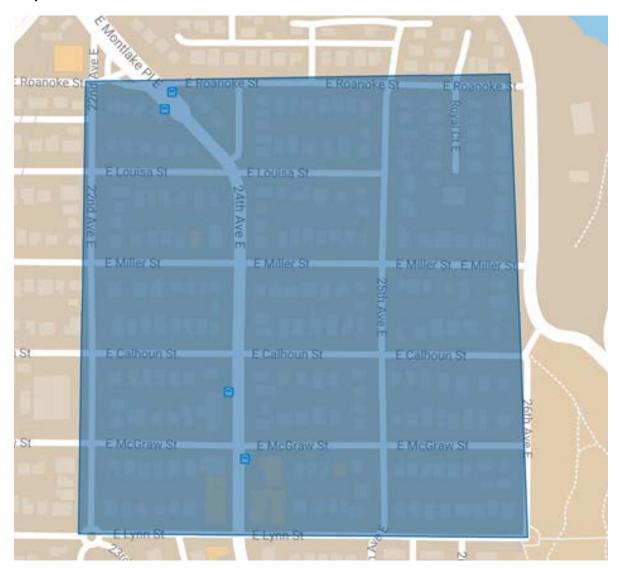
Montlake (11/27) – 14 Survey Submissions / 16 Bicycles Total

Time of Day: 4 p.m. to 4:30 p.m.

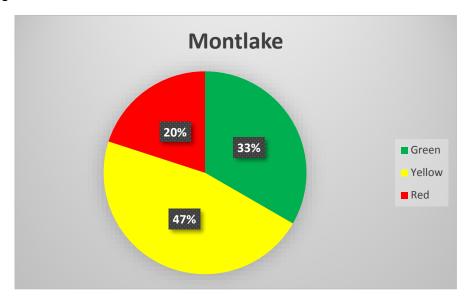
Zoning Designations:

- Single Family 16 Bikes
 - o (SF5000)

Findings: This portion of the Montlake neighborhood is zoned single-family residential (SF5000). Though there were fewer bikes here than in other survey areas, many received 'Red' or 'Yellow' color ratings due to the very narrow sidewalks. Some streets feature sidewalks as narrow as five feet, making compliant parking scarce in these areas.



Overall Parking Breakdown:



Submission Breakdown (by response):

Question 1: Is the bike parked in a rack or designated parking area?

- 1. Yes, in bike rack
- 2. Yes
- 3. Yes, in designated bike parking area
- 4. No, but parked within 6 feet of bike rack or designated parking area
- 5. No (14 submissions)

Question 2: Parked perfectly? (If yes, skip to the zombie bike section)

- 1. Yes (9 submissions)
- 2. No (5 submissions)

Question 3: What kind of place is the bike parked?

- 1. Sidewalk furniture zone (ROW) (5 submissions)
- 2. Sidewalk through zone (ROW) (1 submission)
- 3. Sidewalk frontage zone (ROW) (4 submissions)
- 4. Sidewalk corner (ROW) (2 submissions)
- 5. Shoulder where sidewalk absent (ROW)
- 6. Median (ROW)
- 7. Vehicle parking lane (ROW) (1 submission)
- 8. Vehicle travel lane (ROW)
- 9. Private property, limited access (including front lawns)
- 10. Parking lot or structure (open to the public)
- 11. Privately-owned public open space
- 12. Publicly-owned park or plaza

Question 4: Check all that apply:

- 1. Bike is tipped over (2 submissions)
- 2. Bike is damaged (get bike number)
- 3. Bike impedes pedestrian flow (leaves less than 6 feet pedestrian clearance) (3 submissions)
- 4. Bike impedes pedestrian flow but leaves 6+ feet clearance (e.g. bike in the middle of wide through zone)
- 5. Bike blocking pedestrian entrance/exit of adjacent buildings/property
- 6. Bike on corner, inside edge
- 7. Bike on corner, outside edge (2 submissions)
- 8. Bike on corner, middle
- 9. Bike on pedestrian curb ramp
- 10. Bike on driveway/curb cut
- 11. Bike blocks street traffic
- 12. Bike overhangs curb
- 13. Bike blocking newsbox
- 14. Bike blocking parking pay station (or similar kiosk e.g. ferry pay station)
- 15. Bike within 5 feet of hydrant
- 16. Bike in handicapped parked zone (blue curb)
- 17. Bike in loading zone (white or yellow curb)
- 18. Bike in bus/transit stop
- 19. Bike blocks car parking space (1 submission)

Question 5: Bike visibility

- 1. Bike is visible from ROW (14 submissions)
- 2. Bike is not visible from ROW

Question 6: Is the bike accessible to the next user?

- 1. Easily accessible (e.g. parked on street level) (14 submissions)
- 2. Somewhat accessible (e.g. user must lift bike down from ledge, take stairs/elevator to street level, etc.)
- 3. Not accessible (e.g. behind locked gate, dangling from overhead wire, thrown into water way, perched on Fremont Troll)

Question 7: Does this appear to be a 'zombie bike'?

- 1. Yes
- 2. No (14 submissions)
- 3. Maybe

- 1. Yes (1 submission)
- 2. No (13 submissions)

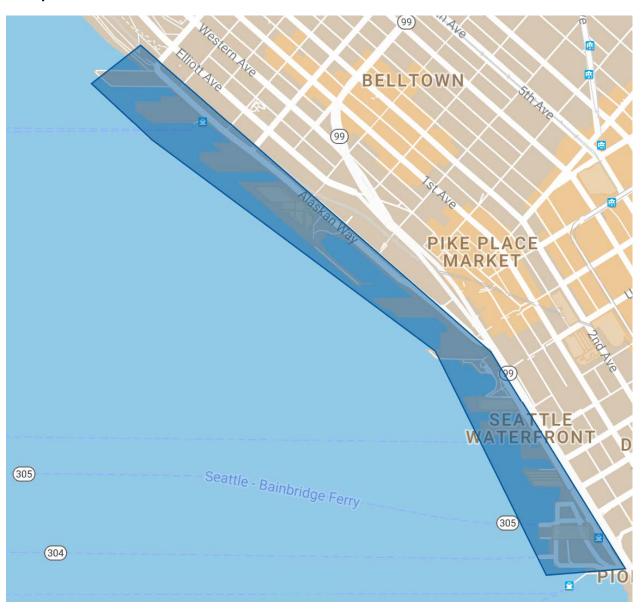
Waterfront (10/23) – 20 Survey Submissions / 53 Bicycles Total

Time of Day: 4 p.m. to 5 p.m.

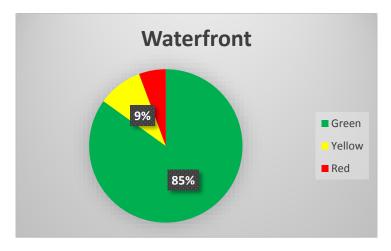
Zoning Designations:

- **Downtown Harbor front –** 53 Bikes
 - o (DH-I/45)

Findings: Users were observed riding bikes to and from the ferry terminal during the afternoon commute hours. Most users parked the bikes in groups at permit compliant locations along the SOV drop off zones in front of the ferry terminal. Most noncompliant bikes were found on WSF property, such as the elevated promenades along the terminal.



Overall Parking Breakdown:



Submission Breakdown (by response):

Question 1: Is the bike parked in a rack or designated parking area?

- 1. Yes, in bike rack (1 submission)
- 2. Yes
- 3. Yes, in designated bike parking area
- 4. No, but parked within 6 feet of bike rack or designated parking area
- 5. No (18 submissions)

Question 2: Parked perfectly? (If yes, skip to the zombie bike section)

- 1. Yes (20 submissions)
- 2. No

Question 3: What kind of place is the bike parked?

- 1. Sidewalk furniture zone (ROW) (14 submissions)
- 2. Sidewalk through zone (ROW)
- 3. Sidewalk frontage zone (ROW) (5 submissions)
- 4. Sidewalk corner (ROW) (2 submissions)
- 5. Shoulder where sidewalk absent (ROW)
- 6. Median (ROW)
- 7. Vehicle parking lane (ROW)
- 8. Vehicle travel lane (ROW)
- 9. Private property, limited access (including front lawns)
- 10. Parking lot or structure (open to the public)
- 11. Privately-owned public open space
- 12. Publicly-owned park or plaza

Question 4: Check all that apply:

- 1. Bike is tipped over
- 2. Bike is damaged (get bike number)
- 3. Bike impedes pedestrian flow (leaves less than 6 feet pedestrian clearance)

- 4. Bike impedes pedestrian flow but leaves 6+ feet clearance (e.g. bike in the middle of wide through zone)
- 5. Bike blocking pedestrian entrance/exit of adjacent buildings/property
- 6. Bike on corner, inside edge
- 7. Bike on corner, outside edge
- 8. Bike on corner, middle
- 9. Bike on pedestrian curb ramp
- 10. Bike on driveway/curb cut
- 11. Bike blocks street traffic
- 12. Bike overhangs curb
- 13. Bike blocking newsbox
- 14. Bike blocking parking pay station (or similar kiosk e.g. ferry pay station)
- 15. Bike within 5 feet of hydrant
- 16. Bike in handicapped parked zone (blue curb)
- 17. Bike in loading zone (white or yellow curb)
- 18. Bike in bus/transit stop
- 19. Bike blocks car parking space

Question 5: Bike visibility

- 1. Bike is visible from ROW (19 submissions)
- 2. Bike is not visible from ROW

Question 6: Is the bike accessible to the next user?

- 1. Easily accessible (e.g. parked on street level) (19 submissions)
- 2. Somewhat accessible (e.g. user must lift bike down from ledge, take stairs/elevator to street level, etc.)
- 3. Not accessible (e.g. behind locked gate, dangling from overhead wire, thrown into water way, perched on Fremont Troll)

Question 7: Does this appear to be a 'zombie bike'?

- 1. Yes
- 2. No (19 submissions)
- 3. Maybe

- 1. Yes
- 2. No (19 submissions)

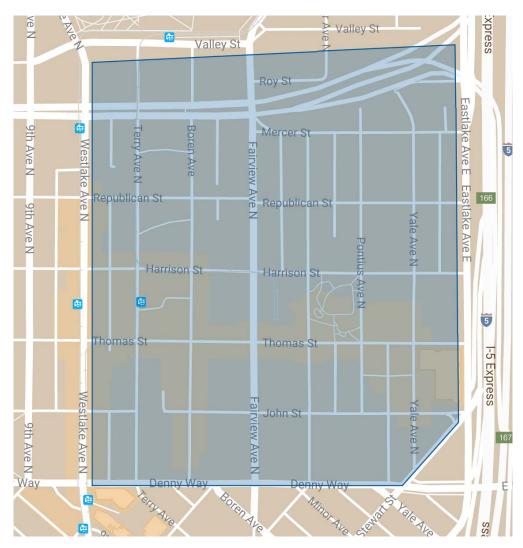
South Lake Union (10/23) – 16 Survey Submissions / 28 Bicycles Total

Time of Day: 2:30 p.m. to 3:15 p.m.

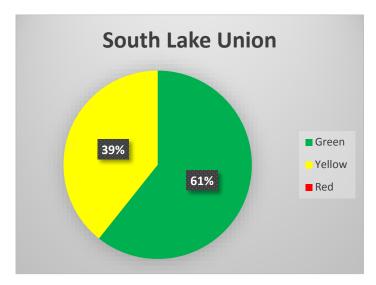
Zoning Designations:

- South Lake Union Mixed 28 Bikes
 - o (SM-SLU 100/95)

Findings: Many of the noncompliant bikes in SLU were located within the building frontage zones where they partially obstructed entrances, inhibiting pedestrian ingress and egress. Most users were observed riding the shared bikes to and from various bus and streetcar stops, where they parked the bikes in large clusters.



Overall Parking Breakdown:



Submission Breakdown (by response):

Question 1: Is the bike parked in a rack or designated parking area?

- 1. Yes, in bike rack (6 submissions)
- 2. Yes (3 submissions)
- 3. Yes, in designated bike parking area
- 4. No, but parked within 6 feet of bike rack or designated parking area
- 5. No (18 submissions)

Question 2: Parked perfectly? (If yes, skip to the zombie bike section)

- 1. Yes (14 submissions)
- 2. No (9 submissions)

Question 3: What kind of place is the bike parked?

- 1. Sidewalk furniture zone (ROW) (14 submissions)
- 2. Sidewalk through zone (ROW)
- 3. Sidewalk frontage zone (ROW) (3 submissions)
- 4. Sidewalk corner (ROW) (5 submissions)
- 5. Shoulder where sidewalk absent (ROW)
- 6. Median (ROW)

- 7. Vehicle parking lane (ROW)
- 8. Vehicle travel lane (ROW)
- 9. Private property, limited access (including front lawns)
- 10. Parking lot or structure (open to the public) (3 submissions)
- 11. Privately-owned public open space (8 submission)
- 12. Publicly-owned park or plaza (5 submission)

Question 4: Check all that apply:

- 1. Bike is tipped over (2 submissions)
- 2. Bike is damaged (get bike number)
- 3. Bike impedes pedestrian flow (leaves less than 6 feet pedestrian clearance)
- 4. Bike impedes pedestrian flow but leaves 6+ feet clearance (e.g. bike in the middle of wide through zone)
- 5. Bike blocking pedestrian entrance/exit of adjacent buildings/property
- 6. Bike on corner, inside edge
- 7. Bike on corner, outside edge (2 submissions)
- 8. Bike on corner, middle
- 9. Bike on pedestrian curb ramp
- 10. Bike on driveway/curb cut (5 submissions)
- 11. Bike blocks street traffic
- 12. Bike overhangs curb
- 13. Bike blocking newsbox
- 14. Bike blocking parking pay station (or similar kiosk e.g. ferry pay station)
- 15. Bike within 5 feet of hydrant
- 16. Bike in handicapped parked zone (blue curb)
- 17. Bike in loading zone (white or yellow curb)
- 18. Bike in bus/transit stop
- 19. Bike blocks car parking space

Question 5: Bike visibility

- 1. Bike is visible from ROW (26 submissions)
- 2. Bike is not visible from ROW (2 submissions)

Question 6: Is the bike accessible to the next user?

- 1. Easily accessible (e.g. parked on street level) (28 submissions)
- 2. Somewhat accessible (e.g. user must lift bike down from ledge, take stairs/elevator to street level, etc.) (1 submission)
- 3. Not accessible (e.g. behind locked gate, dangling from overhead wire, thrown into water way, perched on Fremont Troll)

Question 7: Does this appear to be a 'zombie bike'?

- 1. Yes
- 2. No (28 submissions)
- 3. Maybe

- 1. Yes
- 2. No (28 submissions)

SURVEY QUESTIONS

Is the bike parked in a rack or designated parking area?

- Yes, in bike rack GREEN
- Yes, in designated bike parking area -GREEN
- No, but parked within 6 feet of bike rack or designated parking area
- No

What kind of place is the bike parked?

- Sidewalk furniture zone (ROW) GREEN
- Sidewalk through zone (ROW) RED
- Sidewalk frontage zone (ROW)
 - o In bike rack GREEN
 - o "leaning" on building or out of travel path- YELLOW
 - o Pretty much in through zone or travel path RED
- Sidewalk corner (ROW) YELLOW
- Shoulder where sidewalk absent (ROW)
- Median (ROW)
- Vehicle parking lane (ROW) RED
- Vehicle travel lane (ROW) RED
- Publicly-owned park or plaza
- Privately-owned public open space
- Parking lot or structure (open to public)
 - Not Blocking YELLOW
 - o Blocking RED
- Private property (including front lawns, driveway)
 - o Not Blocking YELLOW
 - o Blocking RED

How is the bike's visibility from the ROW?

- Visible when walking by
- Not visible when walking by RED

Is the bike accessible to the next user?

- Easily accessible (e.g. parked on street level)
- Somewhat accessible (e.g. user must lift bike down from ledge, take stairs/elevator to street level, etc.) - YELLOW
- Not accessible (e.g. behind locked gate, dangling from overhead wire, thrown into waterway, perched on Fremont Troll) - RED

Check all that apply

• Bike is tipped over - YELLOW

- Bike is damaged
- Bike impedes pedestrian flow (leaves less than 6 feet pedestrian clearance) RED
- Bike impedes pedestrian flow but leaves 6+ feet clearance (e.g. bike in middle of wide through zone)
 - o Not in the way YELLOW
 - o In the way RED
- Bike blocking pedestrian entrance/exit of adjacent buildings/property RED
- Bike on pedestrian curb ramp RED/BLACK
- Bike on driveway/curb cut RED
- Bike blocks street traffic -RED
- Bike blocks car parking space RED
- Bike in bus/transit stop YELLOW
- Bike in loading zone (white or yellow curb) YELLOW
- Bike in handicapped parking zone (blue curb) RED
- Bike within 5 feet of hydrant YELLOW
- Bike blocking parking pay station (or similar kiosk e.g. ferry pay station)
 - o Leaning on, still accessible YELLOW
 - o Inaccessible RED
- Bike blocking newsbox
 - o Leaning on, still accessible YELLOW
 - o Inaccessible RED

Did you have to move the bike for safety?

- Yes RED
- No