

## MEMORANDUM

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**Date:** December 27, 2006 **TG:** 06203.00

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**To:** Toby Ressler and Kevin Bergsrud, Seattle Parks Department

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**From:** Jennifer Lowe

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**cc:**

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**Subject:** South Lake Union Park Parking Management Plan: Final Report

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The 12 acre site of the South Lake Union Park is under redevelopment. Plans for the park “reflect the desire to create a park that accommodates large public celebrations, improves public access to the lake and supports and enhances the maritime heritage and preservation organizations associated with the park.” As such, the park must accommodate a variety of users and visitors including:

- Those using the outdoor recreational facilities
- Those visiting one, or several, of the maritime and historical organizations located at the park waterfront or in the former Armory Building, including individuals, families and school and tour groups
- Those conducting business at the non-profit organizations that will be located in the former Armory Building and potential other future tenants of the building
- Those coming to the public events (concerts and festivals) that will be hosted at the park
- Employees and volunteers who support the running of all of the above

Park redevelopment plans include modifications to the current on-site parking supply. This Parking Management Plan described at the end of this report, will address the parking needs of those uses indicated above by management of the on-site parking supply, identification of additional potential supply of parking in the area, and programs to reduce the parking demand for park related uses.

This analysis is divided into three phases that led to the development of the Parking Management Plan:

- Phase 1: Existing Conditions: Identifies existing parking supply and utilization of that supply on-site and in the vicinity of the park.
- Phase 2: Identifies project generated parking demand as well as future conditions (parking supply and demand) in the vicinity of the park.
- Phase 3: Identifies optional elements of the Parking Management Plan and makes recommendations to serve future patrons of the park.

## Existing Conditions

This section summarizes the findings for Task 1 of the development of the Parking Management Plan for the South Lake Union Park. Task 1 focused on existing parking conditions (supply and utilization) within the vicinity of the park.

### ***Parking Supply***

Parking inventory that will serve the site was identified within an approximately half-mile perimeter of the park (with the exception of to the west, where SR 99 (Aurora Avenue) is considered a barrier from beyond which people would not be expected cross when walking to and from their vehicle to the park.

The **primary study area** focuses on land uses within roughly a quarter-mile from the Valley Street edge of the park. The Primary Study Area extends south to Harrison Street, east to Minor Avenue, west to Aurora Avenue and north approximately where Highlands Drive is located. An **expanded study area** includes an approximately additional quarter-mile to encompass an area approximately one-half mile from the park location. The Expanded Study Area includes all of the primary study area, in addition to all blocks between Aurora Avenue and Eastlake Avenue, as far south as Denny Way and as far north as Highlands Drive. Note that the distance from Valley Street to the far edge of the park is approximately another 750 feet. Depending on the visitor's destination, actual walking distance may be farther than the ¼ and ½ mile radii of the study areas.

While the parking in the primary study area may help supplement the on-site parking supply for visitors to the park's recreational and historical/educational venues the parking within this expanded study area may be considered as potential parking assets for the larger community events such as festivals and concerts that may be hosted on site. Figure 1 illustrates the boundaries of the primary and expanded study area.

In order to assess the availability for park visitors of parking within the primary and expanded study areas, the parking inventory is classified as either public or private.

### **Definitions**

**Public Parking:** For purposes of this study, “public parking” includes on-street parking, and off-street parking that is available to the general public. The off-street public parking mainly consisted of public pay-lots, but also includes some metered or free parking near the shoreline of Lake Union located in areas to the east and northwest of the park's boundaries. This off-street parking is not “reserved” for permit users, tenants of specific buildings or patrons of specific businesses. Much of the public off-street parking is managed by private parking management companies and requires payment of an hourly fee.

**Private Parking:** For purposes of this study, “private parking” is the remaining off-street parking that includes any parking posted as reserved for employee, customers, residents, monthly permit, or any other use that specifically denies parking for the general public. This parking is not considered as available for park patrons. Several

areas had parking that was operated as permit-only during the day and as public-pay during the evenings and weekends. For that reason, though the number of off-street parking spaces is finite, the classification of whether they are “public” or “private” differs between days of the week (weekdays or weekends) and time of day, such as evenings. In the primary study area, about 100 spaces that require permits during the weekday day are available to the public during evenings and weekends. A total of about 200 parking spaces in the expanded study area convert to public parking in the evenings and on weekends.

## Inventory Results

Both On-Street and Off Street parking in the entire South Lake Union study area was inventoried on August 23 and 24, 2006. The inventory of parking spaces for the primary and expanded study is provided in Tables 1 and 2. The information in Table 1 is also summarized in Figure 2, attached.

**Table 1. Weekday Daytime Parking Supply<sup>1</sup>**

Parking Type	Primary Study Area	Expanded Study Area
Public On-Street	1,166	2,937
Public Off-Street	1,017	1,436
Private	2,155	7,601
Total	4,338	11,974

<sup>1</sup> Figure 2 provides the weekday daytime inventory. Note that additional public parking is available during evenings and weekends when some parking that is normally limited to permit parking during the day is made available for public use.

**Table 2. Weekend and Evening Parking Supply**

Parking Type	Primary Study Area	Expanded Study Area
Public On-Street	1,166	2,937
Public Off-Street	1,112	1,630
Private	2,060	7,407
Total	4,338	11,974

## ***Parking Utilization***

Parking utilization counts were conducted at midday (11:00 to 1:00) and evening (6:30 to 8:30) on Saturday August 26, 2006, and Tuesday August 29, 2006.

**Table 3. Parking Utilization Primary Study Area**

<b>Parking Type</b>	<b>Weekday Midday</b>	<b>Weekday Evening</b>	<b>Weekend Midday</b>	<b>Weekend Evening</b>
Public On-Street	899 (78.4%)	338 (29.5%)	329 (28.7%)	333 (29.1%)
Public Off-Street	595 (58.5%)	214 (19.4%)	248 (22.9%)	394 (35.6%)
<i>All Public</i>	<i>1,494 (68.4%)</i>	<i>552 (24.2%)</i>	<i>577 (25.3%)</i>	<i>727 (31.9%)</i>
Private	1,056 (51.3%)	345 (16.7%)	345 (16.0%)	302 (14.7%)

**Table 4. Parking Utilization Expanded Study Area**

<b>Parking Type</b>	<b>Weekday Midday</b>	<b>Weekday Evening</b>	<b>Weekend Midday</b>	<b>Weekend Evening</b>
Public On-Street	2,373 (80.8%)	977 (33.3%)	1,091 (37.1%)	926 (31.5%)
Public Off-Street	777 (54.1%)	227 (13.9%)	281 (17.2%)	402 (24.7%)
<i>All Public</i>	<i>3,150 (72.0%)</i>	<i>1,204 (26.4%)</i>	<i>1,372 (30.1%)</i>	<i>1,328 (29.1%)</i>
Private	3,753 (51.5%)	976 (13.4%)	976 (13.0%)	751 (10.3%)

Existing utilization gives an indication of how much parking, based on existing supply and land uses, would be available to accommodate additional parking demand that might be generated by park related use. Figure 3 provides the number of “available” public parking spaces in the primary and expanded study areas by time of day.

Note that the parking utilization counts included parking used by any individuals who were working and volunteering at or visiting existing park related venues. During the time and dates of the utilization counts, there were no known events occurring and thus would be considered typical activity. The parking is also used by people who live in, work at, or visit other uses in the study area. As such it is difficult to isolate existing park usage. Many visitors to the park come to more than one venue while at the park, or may come just to recreate and view the waterfront activity. Additionally, patrons of the many restaurants and shops along the South Lake Union waterfront may also visit the park during their outing. While it is difficult to isolate how much of the observed parking is related specifically to existing park uses.

## ***Summary of Existing Conditions***

In the Primary Study area, there are a total of approximately 4,300 parking spaces. Of those, about half are private, a fourth on-street and the last fourth are off-street but available to the public. In the expanded area, there are nearly 12,000 parking spaces. Almost 60% of those are private. Two-thirds of the remaining are on-street, and the

remainder are off-street but available to the public. The public supply increases slightly (100 spaces for the Primary Study Area and 200 spaces for the Expanded Study Area) during evenings and weekends as some spaces that are available by permit only during the day, become available to the public at other times.

Highest parking utilization occurs on weekdays during office hours. At this time on-street parking is about 80% utilized. During the other time periods on-street parking is only about 30% utilized. The highest utilization of public off-street parking also occurs on weekdays, during office hours at which time it is around 50-55% utilized. In the primary study area, on weekend evenings this parking is about 40% utilized (even less so in the expanded study area, away from the high traffic waterfront uses). All public parking is less than 20% utilized on weekday evenings and on weekend days. This availability pattern will be useful in accommodating future park visitation on weekends and weekdays when public visitation is likely to be highest. The next Phases of the Analysis will project future availability of public parking and park generated parking needs.

## **Future Conditions**

This section reviews future parking conditions in the study area and future parking demands for the park. In order to assess impacts of the South Lake Union Park redevelopment, the changes in parking resources and additional park-created demands must be taken into account. The additional park-created demand is then compared to the estimated future parking resources.

### ***Future Parking Resources of the Surrounding Area***

Tables 5 and 6 provide a summary that compares existing and future parking supply, as developed in Phase 1 of this study. Parking under the “removed category” includes existing on-street parking that will be eliminated due to the new streetcar line that will serve the area, on-street parking that will be created due to the removal of curb cuts with the development of new buildings, and all known changes to off-street parking as a result of development in the study areas. An itemized list is provided in the appendix of this report in Table A1. Figure 4 also shows a map with the approximate locations of future developments.

Note that recent changes in the City’s development code will allow developers to reduce the amount of parking provided for commercial use in the South Lake Union area. If future development projects choose to provide reduced amounts of commercial parking there will be more competition for the general public parking on which park visitors will rely.

Two scenarios are necessary for a review of future conditions. In **scenario 1**, the park is built as planned and includes a 48 space lot that will eventually be removed

completely. There are also 3 blocks along Valley Street just south of the park that may be redeveloped in the future, but in this scenario (Scenario 1) they remain as currently developed. **Scenario 2** is further along in the future after the temporary lot on the SLU park site is removed, and the aforementioned 3 blocks would be also be redeveloped. If these blocks are redeveloped, there would be a combined loss of 306 off-street parking spaces (189 are public and 117 are private). However, there is also the possibility that 100 to 160 garage parking spaces will be reserved for park use on one of those redeveloped blocks. For the analysis of scenario 2, 120 parking spaces are assumed to be added for public use.

**Table 5. Future Parking Changes (Scenario 1)<sup>1</sup>**

	Existing	Removed	Added	Result
<b><i>Primary Area</i></b>				
Public on-street	1,166	52	0	1,114
Public off-street	1,017	284	77	810
<i>Subtotal: Public</i>	<i>2,183</i>	<i>336</i>	<i>77</i>	<i>1,924</i>
Private	2,155	172	2,282	4,265
Total	4,338	508	2,359	6,189
<b><i>Expanded Area</i></b>				
Public On-Street	2,937	68	15	2,884
Public Off-Street	1,436	452	77	1,061
<i>Subtotal: Public</i>	<i>4,373</i>	<i>520</i>	<i>92</i>	<i>3,945</i>
Private	7,506	430	4,801	11,877
Total	11,879	950	4,893	15,822

1. This represents conditions such that there is a temporary lot on site, and the 3 blocks along Valley Street remain undeveloped.

**Table 6 Future Parking Changes (Scenario 2)<sup>1</sup>**

	Existing	Removed	Added	Result
<b><i>Primary Area</i></b>				
Public on-street	1,166	52	0	1,114
Public off-street	1,017	473	149	693
<i>Subtotal: Public</i>	<i>2,183</i>	<i>525</i>	<i>149</i>	<i>1,807</i>
Private	2,155	172	2,282	4,265
Total	4,318	697	2,431	6,072
<b><i>Expanded Area</i></b>				
Public On-Street	2,937	68	15	2,884
Public Off-Street	1,436	641	149	944
<i>Subtotal: Public</i>	<i>4,373</i>	<i>709</i>	<i>164</i>	<i>3,828</i>
Private	7,506	430	4,801	11,877
Total	11,879	1,139	4,965	15,705

1. This represents conditions such that there is no temporary lot on the site, 120 spaces are built for the park, and the 3 blocks along Valley Street are redeveloped.

Table 6 provides the estimate of the number of on- and off-street parking that will be lost and gained as new development and the addition of the street car line takes place. In the primary study area, in scenario 1, about 2,000 parking spaces will be gained though there is a net loss of about 260 publicly available spaces, or about 12%. In scenario 2, this changes to an increase of and 3275 total parking spaces, but there is a net loss of about 375 publicly available spaces, or about 17%.

For this analysis, although nearly all of the future projects' parking supply is considered as private there may be a possibility to use some of it as public (pay-lot) space particularly during their non-peak periods, such as evenings and weekends for office buildings. While this analysis does not assume that the majority of new developments in this area will provide parking supply available to the public, especially during the weekday daytime, it should also be noted that the assumption was that public parking that is currently available will continue to be available in the future, if not otherwise developed. As this area redevelops there may be some lag time between when the density and transit service develops to an extent that more urbanized levels of transit use and ridesharing develops. Parking supply at many of these newer buildings is expected to reflect lower parking demand of more urbanized areas. To some extent, earlier on, some spill over of parking demand from these new developments may occur. This could create additional demand for parking that this analysis identified as "available" for park use.

## On-Street Parking

Seattle Department of Transportation (SDOT) recently conducted a review of on-site parking in the area. The result is a recommendation that pay stations be installed for most on-street parking. A parking rate will be charged to encourage 85% utilization and support a mix of longer-term and short-term use of on-street parking. Increased

enforcement is also recommended. Better management of on-street parking should improve availability of parking for park patrons and volunteers.

### ***Park Related Population***

Information was gathered from Center for Wooden Boats (CWB), Museum of History and Industry (MOHAI), Northwest Seaport, South Lake Union Park personnel, United Indian of All Tribes (UIT), and the Virginia V Steamboat to estimate employees', visitors', and volunteers' following patterns:

- Average number of patrons
- Seasonal split, and time of week split
- Length of stay
- Patrons per vehicle
- Future projections

Table 7 shows the estimates for existing and future number of park facility patrons, volunteers and on-site employees at different days and seasons. A spreadsheet providing more detailed information on the assumptions used to develop these estimates is attached. The existing numbers show a total of all current uses except for MOHAI because it is not currently on site. The future estimates show the combined populations of both MOHAI and all other park uses. Table A2 provides a list of each park tenant and their estimates for present and future visitor data.

**Table 7. Park Visitors Typical Activity**  
*Peak daily park population for typical activity demand*

	Weekday	Weekend
<b><i>Existing<sup>1</sup></i></b>		
Summer day	425	527
Summer evening	393	698
Winter day	406	398
<b><i>Future</i></b>		
Summer day	705	1,035
Summer evening	651	819
Winter day	955	1,347

1. Existing conditions numbers do not reflect MOHAI populations because MOHAI is currently off-site. The existing numbers only show South Lake Union Park populations.

There will be some reduction in park population due to the relocation of the employees and volunteers currently at the Armory. This is offset substantially by the projected increases in visitor and staff populations of MOHAI and other park uses.



## **Park Future Parking Demand and Supply**

The parking demand differs by type of patron (i.e. employee, volunteer, and visitor), the purpose of visiting the park, as well as time of day. Some of the visitors stay for varying amounts of time. Different park uses experience different peak flows of visitors and volunteers dependant on the time of day, day of the week, or season. These factors were taken into account to determine a more accurate estimate of parking needs. A spreadsheet that provides the assumptions used in developing the parking demand is attached. When all of the demand is distributed by hour, it was found that 4:00 PM would be most likely the peak parking demand time.

This analysis is based on the assumption that MOHAI will elect to relocate into the Armory building. If this is not the case, then it is assumed that use of the Armory Building will continue as current, including a mix of non-profit agency offices, space for public meetings and other low-intensity uses. The weekday parking demand would be similar to that for MOHAI. However, evening and weekend and high activity event parking demand would be expected to be less than as indicated in the analysis, which assumes MOHAI's presence in the park.

The following summarizes findings for supply and demand under two scenarios: *typical activity* and *high activity*.

### **Typical Activity**

Typical activity is used to describe the average visitation when no events or special circumstances would attract a higher than normal park population.

**Table 8. Existing vs. Future Typical Park Parking Needs**  
*Maximum number required parking at peak time of entire day<sup>1</sup>*

	Weekday	Weekend
<b><i>Existing<sup>2</sup></i></b>		
Summer	314	260
Winter	200	159
<b><i>Future</i></b>		
Summer	337	372
Winter	204	266
<b><i>Change</i></b>		
Summer	+23	+112
Winter	+4	+107

1. Peak daytime demand was estimated to occur at 4:00 PM.

2. Existing conditions numbers do not reflect MOHAI populations because MOHAI is currently off-site. The existing numbers only show South Lake Union Park populations.

Table 8 shows that the number of spaces required for a summer weekday will increase by about 25 spaces. The weekend requirements will increase by about 110 spaces.

The highest activity occurs during the summer, both weekday, and weekend. The weekday, however, is when the parking is most limited due to demands of employees and residents in the study area. For the Parking Management Plan it may be necessary to note who is creating the demand during the weekday, so that parking can accommodate a particular segment of the population (such as volunteers). The following table divides the typical peak demand during the summer and winter weekday into 4 categories:

- Employee
- Volunteer
- Visitor
- School (by bus)

**Table 9. Future Typical Peak Parking Demand by Type**

	<u>Summer</u>		<u>Winter</u>	
	Weekday	Weekend	Weekday	Weekend
Employee	28	45	32	45
Volunteer	30	20	6	14
Visitor	281	307	166	208
<b>Total cars</b>	<b>339</b>	<b>372</b>	<b>204</b>	<b>267</b>
School Buses	7	1	11	1

1. Peak demand at 4:00 PM.

**Table 10. Future Typical Park Demand vs. Supply of Primary Area**

	Additional Future Demand <sup>3</sup>	Scenario 1 <sup>1</sup>		Scenario 2 <sup>1</sup>	
		Future Available <sup>4</sup>	Surplus/ (Deficit)	Future Available <sup>4</sup>	Surplus/ (Deficit)
<b><u>Daytime</u><sup>5</sup></b>					
Summer Weekday	23	430	407	313	290
Summer Weekend	112	1,442	1,330	1,325	1,213
Winter Weekday	4	430	426	313	309
Winter Weekend	107	1,442	1,335	1,325	1,218
<b><u>Evening</u><sup>6</sup></b>					
Summer Weekday	68	1,467	1,399	1,350	1,282
Summer Weekend	68	1,292	1,224	1,175	1,107
Winter Weekday	33	1,467	1,434	1,350	1,317
Winter Weekend	33	1,292	1,259	1,175	1,142

1. Scenario 1 includes the temporary lot of 48 spaces on the park site.

2. Scenario 2 does not include the temporary lot of 48 spaces on the park site. Scenario 2 includes the redevelopment of the three blocks south of the park (blocks 25, 31, 37), and addition of 120 garage spaces for park use.

3. "Additional Future Demand" refers to estimates total future park demand minus estimated total current demand.

4. "Future Available" was determined by subtracting any future removal of spaces due to development from the number of existing unused spaces in the Primary Study Area (counted during midday and evening).

5. Peak daytime demand was estimated to occur at 4:00 PM.
6. Evening demand at 6:00 PM.

Table 10 uses the *additional future demand* that is generated by the park and compares that to *future available* (i.e. unused parking spaces) in the primary study area. The existing demand is not used here because the parking spaces that the existing demand utilizes were reflected in the vehicle counts taken in August. The *future available* number is the difference between the total number of public spaces that are currently unused in the primary area, and the number public parking spaces that are going to be lost through redevelopment in the area.

This shows that although there will be additional generated demand, and lost parking, the available parking in the primary study area should be sufficient to handle the displaced cars.

The following (Table 11) shows the park generated demand versus the parking available to public that is in the immediate vicinity of the park. This includes:

- On site parking
- 2 Hour, and metered parking directly to the west of the park (accessible by future foot bridge)
- Valet parking, pay lot, metered parking directly to the east of the park

**Table 11. Future Typical Park Demand vs. Supply of Immediate Park Vicinity**

	Future Spaces <sup>1</sup>	Existing Demand <sup>2</sup>	Additional Park Demand <sup>3</sup>	Total Future Demand	Surplus/ (Deficit)
<b><i>Daytime<sup>4</sup></i></b>					
Summer Weekday	389	375	23	398	(9)
Summer Weekend	389	263	112	375	14
Winter Weekday	389	375	4	379	10
Winter Weekend	389	263	107	370	19
<b><i>Evening<sup>5</sup></i></b>					
Summer Weekday	389	262	68	330	59
Summer Weekend	389	462	68	530	(141)
Winter Weekday	389	262	33	295	94
Winter Weekend	389	462	33	495	(106)

1. "Future Spaces" includes all nearby park spaces minus ones lost through development (see text for detail).
2. "Existing Demand" counts conducted August 2006. No separate counts were conducted during winter.
3. "Additional Park Demand" refers to estimates total future park demand minus estimated total current demand.
4. Peak daytime demand was estimated to occur at 4:00 PM.
5. Evening demand at 6:00 PM.

This shows that there will generally not be enough parking in the immediate vicinity, particularly on weekend-evenings (due to nearby restaurant demand and the future decrease in parking in this area). Weekday-midday will also incur a shortage. During

these times, it will be necessary to use parking in the primary study area that is not immediately adjacent to the park.

## High Activity

Included in the High Demand, are events that do not represent typical unplanned park visitation. This category includes normal visitation in most cases *in addition* to meetings, small festivals, museum openings, boat voyages & charters, and other events.

**Table 12. High Activity Park Needs**

	Weekday	Weekend
<b>Existing<sup>2</sup></b>	653	701
<b>Future</b>	786	878

1. The time of day which has highest demand is 4:00 PM.
2. Existing conditions numbers do not reflect MOHAI populations because MOHAI is currently off-site. The existing numbers only show South Lake Union Park populations.

**Table 13. Future High Activity Demand vs. Primary Area Supply (Scenario 2<sup>1</sup>)**

	Future Additional Demand <sup>2</sup>	Future Available <sup>3</sup>	Surplus/(Deficit)
<b>Daytime<sup>4</sup></b>			
Weekday	381	430	49
Weekend	487	1,442	955
<b>Evening<sup>5</sup></b>			
Weekday	544	1,467	923
Weekend	563	1,292	729

1. Scenario 2 does not include the temporary lot of 48 spaces on the park site. Scenario 2 includes the redevelopment of the three blocks south of the park (blocks 25, 31, 37), and addition of 120 garage spaces for park use.
2. "Future Additional Demand" refers to the difference of the estimated high demand and the current estimated park parking generation at the time counts were taken in the study area.
3. "Future Available" refers to the total number of unused spaces counted during either midday or evening. Supply determined by subtracting any future removal of spaces due to development from the number of existing unused spaces in the Primary Study Area (counted during midday and evening).
4. Peak daytime demand was estimated to occur at 4:00 PM.
5. Evening demand at 6:00 PM.

For High Demand, the park generated parking needs will require nearly every empty public parking space in the Primary Study Area. This estimate is assuming the scenario that each tenant has activities that generate this High Demand occurring in the same day. During this time, it will be important to implement the Parking Management Plan discuss later in this report.

## Special Events

CWB estimates that twice a year they will hold a maritime related festival expected to draw large crowds of approximately 4,000 visitors per day on a Friday through Sunday event. This is not included in the high demand estimates. An event this large will require additional coordination with the community, such as reserved parking, way-finding, possibly blocked streets.

The following table is a worst case scenario that estimates what the surplus/deficit would be during one of these “special events” estimated at 1.5 visitors per car. The supply is looking at the Expanded Area.

**Table 14. Special Event Park Demand vs. Supply**

	Park Demand	Extended Area Supply	Surplus/(Deficit)
<b><i>Daytime<sup>1</sup></i></b>			
Weekday	2,667	795	(1,978)
Weekend	2,667	2,767	100
<b><i>Evening<sup>2</sup></i></b>			
Weekday	2,667	2,935	268
Weekend	2,667	2,811	144

1. Peak daytime demand was estimated to be 4:00 PM.
2. Evening demand at 6:00 PM.
3. Supply determined by taking existing unused spaces in the Primary Study Area minus future removal of public spaces. . This does not include the 120 space proposed garage. It does not include the temporary parking lot on site. Development of that area will result in a loss of 306 surface spaces and a gain of 120 garage spaces.

## ***Other Considerations***

Other elements of park activity and site design will impact the future parking management plan for the park. These are noted in this section.

## **Bus Parking**

Buses will require a nearby area to drop-off /pick-up students, but could be staged offsite between drop-off and pick-up times. Table 15 shows existing and future numbers of visiting buses. The expected duration of student visits is 3 hours, and will primarily occur on Weekdays during school hours. Therefore possibly not all expected buses would be visiting at once.

**Table 15. Daily Bus Traffic**

	Winter	Summer
<b><i>Existing</i></b>		
MOHAI	3	1
UIT	1	1
Total	4	2
<b><i>Future</i></b>		
CWB	3	2
MOHAI	4	2
NW Seaport	1	1
UIT	1	1
Virginia V	3	2
Total	11	7

1. Winter refers to school year (typically September through June).
2. Summer refers to days when school is not in session.

## South Lake Union Street Car Consideration

Part of the South Lake Union Action Plan is to build a Streetcar that would extend from the Downtown Retail Core through the Denny triangle follow along Westlake Avenue and Terry Avenue to Valley Street where the South Lake Union Park is located then turn east along Fairview Avenue to Ward Street at the Fred Hutchinson Center. The streetcar is planned to primarily operate in the traveling lanes of the streets, however, from preliminary designs, a majority of the boarding stops are a result of curb build-outs that extend the sidewalk to the edge of the streetcar and reduce about 80' of on-street parking at each stop.

In the primary area only two stops will affect on-street parking, while in the expanded study area, a total of 6 stops are planned that will affect on-street parking. Depending on the location of alignment on Valley Street, the street car rails could run along the center lane, the northern edge of Valley Street, or the southern edge of Valley Street. This might affect the use of curb-side parking for school buses or public on-street parking.

## Truck Loading Site Considerations

The current site plan provides limited accessibility for trucks that require access to the site. Of primary concern is the lack of loading area near the historic ships wharf. This will be further addressed in the Parking Management Plan section of this report. Also of concern is the internal circulation pattern for trucks as well as buses (See Figure 5, Site Plan). This will need to be addressed in overall design of the park.

## **Valley Street Corridor Alternatives**

Major revisions to street corridors in this area are under consideration. Valley Street, which currently accommodates an extensive amount of westbound traffic from I-5, as part of the directional couplet with Mercer Street, may become more of a local access street, if the Mercer Corridor is reconfigured to accommodate vehicles in both directions to and from I-5. Changes in the roadway characteristics could impact park patron's access to off-site parking as well as directional signage to parking which might serve visitors. Additionally, modifications to Valley Street will impact on-street character, including the ability to accommodate passenger or bus loading on-street, short-term on-street parking and pedestrian crossings. These issues will be further discussed in Phase 3, the Parking Management Plan of this analysis.

## **Parking Management Plan**

Many urban museums and parks have limited or no on-site parking, relying instead on the public supply within walking distance and transit, rail or other alternative public transport to their facilities. However, most of these provide clear signage and informative materials for the public to assist visitors in identifying parking resources (examples are provided). This section outlines elements of the parking management plan.

The recommendations in this parking management plan are intended for operations at a completed South Lake Union Park. A specific date has not been established for completion of later construction phases as this is dependent upon future city and private funding. The findings of this plan, however identify a number of conditions that will exist through all phases of construction and suggested actions for lessening the impacts of limited on-site parking and increased off-site, neighborhood development.

The Parking Management Plan is organized into the following topics:

- Goals
- Responsibility
- Park Activity Coordination
- On-Site Parking Supply
- Off-Site Parking Supply

- Communications
- Transit Connections
- Special Events
- Short-term Measures
- Bus Parking
- Truck Loading

## ***Goal***

The goals of the parking management plan are to:

- Manage the limited parking supply on-site in order to best suit the needs of the park tenants and visitors
- Minimize impacts of park generated parking and vehicle trips on the neighboring community
- Provide the best possible experience for patrons of the park, tenants of the park and their visitors, employees and volunteers

## ***Responsibility***

### **Parking Management Committee**

A committee will be formed to represent the needs and concerns of the tenants of the park. At a minimum, it is recommended that one representative of each of the following organizations will be a member of the committee:

- Seattle Parks Department
- Center for Wooden Boats
- Virginia V
- MOHAI
- United Indians of All Tribes
- Seattle Parks Foundation

The committee will be responsible for coordinating the management of the park resources, including the Master Activity and Event Schedule (described later), reviewing and updating the information on the SLUP website related to driving and parking information, alternative modes of transportation, events scheduled 4-6 six



weeks in advance, events that may impact neighborhood traffic conditions, communication with the adjacent community and the City of Seattle Department of Transportation (particularly individuals who manage the City's public parking supply). The Parking Committee will meet at least twice annually, preferably once before the main event season (1<sup>st</sup> quarter) and again after the main season (4<sup>th</sup> quarter). This committee may choose to meet more frequently as needed, to review management and assignment of on-site parking spaces; review preliminary event schedules per the master activity and event schedule; develop communication pieces for park visitors; address tenant and community concerns that might arise; and deal with other site concerns related to parking.

### **Parking Coordinator**

The Parks Department will identify a SLUP Parking Coordinator, who may be an employee of the Parks Department. The Parking Coordinator will be responsible for:

- Coordinating the efforts of the Parking Committee,
- Maintaining the park scheduling calendar,
- Negotiate schedule conflicts that might overtax parking resources in the area
- Oversee communication materials (including website information, signage and other elements)
- Serve as the point of contact for park tenants, members of the community, adjacent property owners, City staff and park visitors who may have questions or concerns related parking needs and impacts related to the park.
- Coordinate with SDOT or private parking management provider for enforcement of time limitations and fee collection at on-site parking spaces.

### ***Park Activity Coordination and Scheduling***

The Parking Coordinator will maintain a **Master Activity and Event Schedule**. Park tenants will provide the coordinator with a schedule of all intended events and programs prior to finalizing and posting schedules to the public. Should major scheduling conflicts arise where it is indicated that the public parking in the study area could not accommodate the large demand generated by the proposed scheduled events, the Coordinator will negotiate schedule modifications or require event planners to provide off-site shuttles for parking.

### ***On-Site Parking Supply***

SLUP will have one parking lot located just south of the Armory Building. This lot will have approximately 30 parking spaces. This parking is located in the park interior and is not readily visible from the street. Because the supply is limited and on-site circulation is tight, the general public should be encouraged to park in the public parking lots otherwise available outside the park boundaries. Informational signage at the park entrance drive should indicate that on-site parking is limited to ADA,

commercial delivery, passenger loading and permit-only spaces. The following is the recommended priority for assignment/use of those spaces:

1. **ADA Parking.** While the minimum requirements for ADA parking would indicate two parking spaces must be dedicated for ADA use, we would recommend up to eight be ADA designated. CWB and MOHAI serve a large population of disabled visitors. Because parking is so limited on site, options for accessible parking are minimal. The use of the disabled parking can be monitored, and if it appears that this parking is not needed then the additional ADA parking could be converted back to short-term visitor parking.
2. **Commercial Loading:** 2 spaces should be dedicated for commercial vehicles. A 15 minute time limit should be posted and enforced if it becomes abused.
3. **Passenger Loading.** This parking will be available for the public to use to pick-up/drop-off visitors or materials to the buildings within the site. A ten minute time limitations should be managed and enforced. Up to six spaces can be designated for this use.
4. **Assigned parking.** Park tenants have all expressed specific parking needs unique to their operations. For many, of primary concern is the need to provide some parking for volunteers or guests with special loading needs. For this reason, and based on forecasted activities and visitation, the following tenants will have three spaces each assigned for their use: MOHAI, CWB, United Indians of All Tribes. Parks Department and Historic Boat Pier (including Virginia V) will each have two parking spaces assigned. The Seattle Parks Foundation would have one assigned space. These spaces are not intended for employee use. The Parking Committee may opt to time limit parking at these spaces if lack of parking turnover becomes a concern. Parking permits would be required for vehicles in this spot. Permits can be transferable at the discretion of the “owning” tenant. This results in a total of 14 assigned spaces. In order to assure parking is not assigned to employees, a 4 hour time limit is recommended, or the spaces may be assigned for an organization’s fleet car if desired.

The following table summarizes the recommended designation/assignment of the approximately 30 parking spaces in the lot south of the Armory Building.

**Table 16. SLUP Parking Lot Assignment**

	Number	Restrictions
ADA Parking	8	Standard ADA
Commercial Loading	2	15 minute time limit
Passenger Loading	6	10 minute limit, street rate fee
Tenant Assignment	14	permit required, 4 hour limit <sup>1</sup> or assigned for fleet car
<b>Total</b>	<b>30</b>	

1. Recommended assignment of tenant spaces: three each for MOHAI, CWB, United Indians of all Tribes; two each for Parks Department and Historic Boat Pier, one for Seattle Parks Foundation.

Note that no parking is assigned to on-site employees. Because on-site parking is so limited, site employees should be encouraged to utilize alternate means of transportation. The Parking Coordinator may, on the behalf of Park Tenants, work with parking management/operators in the area to negotiate monthly parking rates for off-site parking for site employees and volunteers. The cost for permits is to be borne by employees or from the budgets of the individual organizations. Often, in lieu of offering on-site parking, and in order to encourage use of alternative transportation, employee programs may offer the following incentives for employees:

- Transit subsidies
  - Monthly passes for employees who don't drive to work
  - Bus tickets for volunteers
- Provide some emergency means of getting home (Guaranteed Ride Home Program)
- Other incentives, (i.e. as showers in the workplace or REI gift certificates)

## **Temporary Parking Lot**

Another 48 parking spaces will be available on a temporary basis until additional public parking is included in the future development of the “City Block” developments across Valley Street from the park. These should be signed for park visitors only and have a four hour time limit posted. To the extent possible, these spaces should be managed and enforced as other on-street parking in the vicinity, using pay stations and City enforcement. Without these limitations, this parking is likely to be heavily utilized by non-park uses.

## **Off-Site Parking Supply**

As part of the South Lake Union Park Parking Study, a supply of public parking spaces (both on- and off-street) was identified in the area. See attached figure (Figure 7). The analysis showed that though on-site park parking will be minimal, for most situations, this additional parking supply should be available and adequate to meet park generated demand. However, the ease at which this parking can be identified will be paramount to its success in meeting this demand. The communications and signage plans should help park visitors identify where off-site parking is available. The Parking Coordinator will want to foster relationships with owners and managers of off-site parking. For example, for large special events, large sources of potential supply (nearby office buildings for evening and weekend events) can be coordinated with ahead of time. While they might not typically operate during these time periods, they may be willing to run event related parking specials.

## **Communications**

### **Signage**

Signage will be important in communicating parking options to park visitors. Signs can either be static or dynamic. While available, the temporary lot will be immediately visible for park visitors. However, the Armory Lot parking will be harder for visitors to identify. Because the parking in this lot will be so limited, most visitors should be directed to the public lots along Westlake Avenue or other off-site parking.

Seattle's City Design team currently is working on a city-wide official way-finding guide and standards, no additional information is known on this yet. SLUP should make an effort to participate in the way-finding program to assist park visitors in identifying parking options as well as driving and walking routes to guide visitors unfamiliar with the South Lake Union area.

### **Website**

As noted, many museums and public venues in United States provide very little or no on-site parking. Most promote alternative means of transportation. Some identify good sources for off site parking. Examples of website communication are:

- Guggenheim Museum<sup>1</sup>, the Holocaust Memorial Museum<sup>2</sup> in Washington DC and the Smithsonian Institution<sup>3</sup> museums in Washington DC, (all of which have no onsite parking and visitors are directed to nearby resources or alternative means)
- The Museum of Science and Industry<sup>4</sup> in Chicago (user friendly website for visitors via car, train, taxi, or bus)
- Gaslamp Quarter<sup>5</sup> in San Diego, and Smithsonian Institution (features downloadable maps of area showing parking and destinations, Smithsonian has several downloadable maps and guides)

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<sup>1</sup> [http://www.guggenheim.com/visit\\_us/getting\\_there.shtml](http://www.guggenheim.com/visit_us/getting_there.shtml)

<sup>2</sup> <http://www.ushmm.org/visit/gethere/>

<sup>3</sup> <http://www.si.edu/visit/directions.htm> , <http://www.si.edu/visit/infocenter/access.htm>

<sup>4</sup> <http://www.msichicago.org/info/vtm/directions.html>

<sup>5</sup> <http://www.gaslamp.org/location.php>

At a minimum, the SLUP website should contain the following:

- hyperlinks to KC Metro Transit website & SLU street-car
- map of local parking
- map of bus routes in area and where they go to/come from
- more user friendly design and attractive so as to highlight all means of travel and options
- make maps into printable PDF form so visitors can download and plan their trips

### **Brochures/Collateral Materials**

SLUP should provide maps and directions, reflecting the same information contained in the website. This information can be used in tenant organization's brochures as well.

### ***Transit Connections***

Figure 6 shows transit routes through the study area. Unfortunately there are no direct connections from the study area to Seattle Center. The Parking Management Committee may wish to lobby METRO for a future route that would provide such a connection. Routes currently do provide connection to Westlake Center and other locations downtown. Currently, all transit generally follows a north-south pattern through the South Lake Union area.

**Table 17. Bus routes traveling through South Lake Union area**  
*Shows route number and some of the destinations throughout Seattle*

Location	5	8	16	17 -23'	25	26- 42'	28- 39'	66	70	71	72	73	74	83	358
Aurora Ave N													X		X
Ballard				X			X								
Beacon Hill							X								
Capitol Hill		X													
Coleman Ferry			X					X							
Dexter Ave N						X	X								
Downtown	X		X	X	X	X	X	X	X	X	X	X	X	X	X
East Green Lake			X			X								X	
Fairview Ave N									X						
Fremont	X					X	X						X	X	
Greenwood	X													X	
Lake City											X				
Latona Ave N						X									
Loyal Heights				X											
Maple Leaf								X			X	X			
MLK Jr. Way						X									
Montlake					X										
Northgate	X		X					X							
Queen Anne		X												X	
Rainier Beach						X	X								
Rainier View						X									
Ravenna										X			X		
Seattle Center		X	X										X	X	
Seattle Pacific U				X											
SODO							X								
Sunset Hill				X											
University District								X	X	X	X	X	X		
View Ridge										X					
Wallingford			X			X							X	X	
Wedgwood										X					

**Frequent Service<sup>2</sup>**

Weekday	X					X	X	X	X	X	X	X			X
Saturday	X					X	X		X	X	X	X			X
Sunday & Holiday										X	X	X			

1. Routes 17, 26, and 28 change to 23, 42, and 39 (respectively) when traveling through downtown  
2. Frequent Service is classified by King County Metro as bus routes that operate every 15 minutes or better during the day until at least 6:00 p.m. Monday-Saturday and 5:30 p.m. on Sundays and holidays.  
Note: This table is not all-inclusive. Route and frequency may also change periodically, for the most accurate and up to date information contact King County Metro

## ***Special Events***

As noted, while enough parking supply should be available for typical park activity, special events and festivals will require parking beyond the immediately available public parking supply. On these occasions, event sponsors will want to coordinate with METRO or private bus operators to shuttle event attendees from off-site parking sources, such is currently done for the Bellevue Arts and Crafts Fair, Zoo events and other local festivals. Larger sources of potential parking for such occasions are the Convention Center, Seattle Center (however, the availability of this parking would be limited by conflicting activities at the Center), larger office complexes in the South Lake Union area (for evening and weekend activities only), UW (also on evenings and weekends or during school breaks). The Parking Coordinator should establish relationships with these entities in order to negotiate these arrangements.

In partnership with private parking operators, including surface lots and office building management, temporary signs can be set up (mobile variable messaging, sidewalk sandwich boards) to direct visitors to sources of off-site parking.

## ***Short-Term Measures***

During park development, on-site parking may not be available for a limited time. During this time, it will be critical to have off-site parking resources clearly identified. While on-site parking is limited, priority should be given to ADA parking and commercial delivery needs.

## ***Bus Parking***

Many park tenants host large groups (public school or private parties). The site is not well designed to accommodate buses on-site. In the future, as Valley Street is reconfigured, on-street parking adjacent to the park should be reserved for bus loading/unloading. SLUP needs to work with SDOT to accommodate this use. This bus parking can also serve as a drop off/pick up area for any special event off-site shuttle parking that is served by public or private transit vehicles. No long-term bus dwelling should be permitted.

Until this on-street parking is available, buses will need to use the internal roadway to access loading near the parking lot south of the Armory Building. To the extent possible, loading should be located outside of this lot. An area inside of the pedestrian corridor may need to be used. Bus turn-around is also of concern. Temporary use of the internal pedestrian corridor may also be needed for this. This can be achieved by using removable bollards that allow pedestrians easy access but control vehicle access. This is often used at parks and universities to allow access of loading and maintenance vehicles. Bus loading should be incorporated in future operational plans and finalized park design, even if solely through this temporary phase until Valley Street bus loading can be established.

## ***Truck Loading***

Many of the tenants have truck loading requirements that will require on-site space. Current park design does not adequately accommodate these uses. Note that some short-term commercial loading spaces are recommended for designation in the assignment of on-site parking spaces. Modifications to the internal pedestrian corridors may be needed. To the extent possible, truck activity for major installations at MOHAI should be focused on non-operational park hours, or, at least, outside of peak park visitation hours. Likewise, truck deliveries to historic ships that need to be located close to the ship peer should be directed to non peak park visitation hours to the extent possible. Any major truck loading activity within park hours, for any tenants, should be coordinated through the Parking Coordinator to assure that proper pedestrian controls are in place, bollards are moved and replaced and all safety measures are in place to maximize site safety and minimize impacts on park visitors.



## Appendix A: Tables

Table A1 South Lake Union Area Pipeline Project Summary

Date: Sep-06

Study Area	Block #	Proj #	Pipeline Project Name	Project Location	Proposed Land Use (and Size)	Parking Information	Study Firm	Status Sept 06	Parking removed		Parking Added	
									public	private	public	private
Primary	96 & 97		SLU Park Streetcar		This includes the 48 space temporary lot	105 space lot, 29 space lot, some			217	0	77	0
									8	0	0	0
	81	-	Neptune Apartments	912 Dexter	17,000 SF Res, 234 Rental Units	324 spaces in 3 level garage	Bill Popp	nearly complete	0	0	0	324
	38	00006	Interurban Exchange II	SW Corner of Terry/Mercer	107,000 SF Office or Biotech	166 spaces in garage	Transpo/Vulcan		65	0	0	166
	33	00006	Interurban Exchange IV & V	410 Terry Ave	235,000 SF Office or Biotech, 6 story mixed use, R&D/Office/Retail with	432 spaces in garage (Option 1) o	Transpo/Vulcan		46	12	0	432
	51	05014	Block 50 SE/Veer Lofts	SE corner of block 51	97,000 SF Res, 90 Dwelling Units, 4000 SF Retail	150 spaces below grade w/ alley a	Transpo		0	10	0	150
	50	04018	UW Medicine Phase II			500 spaces, garaged	Transpo	Phase I (block 50) un	0	0	0	500
	55	04018	UW Medicine Phase III			710 spaces, garaged	Transpo		0	150	0	710
Total:									336	172	77	2282
Expanded	96&97		SLU Park Streetcar						217	0	77	0
									24	0	0	0
	3	00005	511 Eastlake Office	511 Eastlake Ave	137 Rental Units, 30,000 SF Medical Office	137 Parking spaces in garage	Transpo		0	0	0	137
	9	03298	Bargreen	on Mercer Ave	430 Res Units, 5000 SF Retail	500 parking spaces in garage, add	Transpo		136	5	7	500
	9			On Yale Ave				Under Construction	0	0		
	10	-		422 Yale Avenue	109 Rental Units		Bill Popp		0	34		
	14	(#9801582)		1200 Mercer Street	55,588 SF res, 63 Rental Units	63 Parking Spaces in 2 level garage			0	8	0	63
	15	04163	Alexan Cascade	Cascade Neighborhood, So. of	205 Rental Units, 8000 GSF retail	274 parking spaces in 2 undergrou	Transpo		0	0	4	274
	20	(#2002080)		530 Fairview	64,100 SF Office	207 Parking spaces in undergraou			0	48	0	207
	22	(#9805083)		301 Minor Ave	132,353 SF Res, 150 Rental Units	173 Parking Spaces in underground		Under Construction	0	0	0	173
	24	05086	Mirabella	116 Fairview Ave N	425 Unit Retirement facility, 7000 SF retail	364 proposed spaces, dispaces 14	Transpo		0	124	4	364
	41	(#6067012)		967 Thomas St	4 Story 41,000 SF (Office w/ ground floor retail)	73 spaces in underground garage			0	16	0	73
	42	-	Rolins Street Condos	120 Westlake Ave N	11 Story Bldg, 208 Rental Units, 24,220 SF Retail	281 spaces in garage	Heffron/Vulcan		32	23	0	208
	81	-	Neptune Apartments	912 Dexter	17,000 SF Res, 234 Rental Units	324 spaces in 3 level garage	Bill Popp	nearly complete	0	0	0	324
	38	00006	Interurban Exchange II	SW Corner of Terry/Mercer	107,000 SF Office or Biotech	166 spaces in garage	Transpo/Vulcan		65	0	0	166
	33	00006	Interurban Exchange IV & V	410 Terry Ave	235,000 SF Office or Biotech, 6 story mixed use, R&D/Office/Retail with	432 spaces in garage (Option 1) o	Transpo/Vulcan		46	12	0	432
	40	05014	Block 40/Group Health	Block 40	297,600 SF Office, 37,500 SF Retail	520 Spaces, 109 below peak expe	Transpo	Block 40: currently co	0	0	0	520
	51	05014	Block 50 SE/Veer Lofts	SE corner of block 51	97,000 SF Res, 90 Dwelling Units, 4000 SF Retail	150 spaces below grade w/ alley a	Transpo		0	10	0	150
	50	04018	UW Medicine Phase II			500 spaces, garaged	Transpo	Phase I (block 50) un	0	0	0	500
	55	04018	UW Medicine Phase III			710 spaces, garaged	Transpo		0	150	0	710
Total:									520	430	92	4801

Blocks Not Started, but possible future development:

- 10
- 11
- 52 Vulcan Property
- 56 Vulcan Property
- 57 Vulcan Property
- 25,31,37 Vulcan Property
- 31 Vulcan Property
- 37 Vulcan Property
- 48 Vulcan Property

With build of this, then additional 120 -150 spaces could be built for the park

primary area  
expanded area

Parking removed		Parking Added	
public	private	public	private
237	117	120	0
525	289	149	2282
709	547	164	4801

TABLE A1 Park Populations Estimates for Present and Future

People				Present								Future											
				Typical						High Demand				Typical						High Demand			
				Weekday			Weekend			Weekday		Weekend		Weekday			Weekend			Weekday		Weekend	
				Day	Winter	Summer	Day	Winter	Summer	Day	Evening	Day	Evening	Day	Winter	Day	Summer	Day	Evening	Day	Winter	Day	Evening
Avg. occ. per vehicle	Category	Activity	Day	Winter	Summer	Evening	Day	Winter	Summer	Evening	Day	Winter	Summer	Evening	Day	Winter	Summer	Evening	Day	Winter	Summer	Evening	
Employee	1.25	EDU	Center for Wooden Boats <sup>1</sup>	0	0	0	0	0	0	0	0	68	32	0	0	0	0	68	0	0	0	0	
Schools/Students	22.7	EDU	Center for Wooden Boats <sup>2aβ</sup>	260	172	343	260	172	343	600	343	600	343	367	244	489	367	244	489	367	244	489	
Visitors (Individual)	1.5	EDU	Center for Wooden Boats <sup>3</sup>	10	10	50	30	50	50	10	50	50	50	10	10	50	30	50	50	10	50	50	
Volunteer	1.25	EDU	Center for Wooden Boats <sup>4</sup>	0	0	0	0	0	0	0	0	5	5	0	5	5	0	5	0	5	0	0	
Employee	1.25	EDU	Historic Ships Wharf, Virginia V <sup>5</sup>	0	0	0	0	0	0	0	0	68	32	0	0	0	0	68	0	0	0	0	
Schools/Students	22.7	EDU	Historic Ships Wharf, Virginia V <sup>6</sup>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Visitors (Individual)	n/a	EDU	Historic Ships Wharf, Virginia V <sup>7</sup>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Volunteer	1.25	EDU	Historic Ships Wharf, Virginia V <sup>8</sup>	25	25	0	5	5	0	25	0	5	0	25	25	0	35	35	0	25	0	35	
Employee	1.25	EDU	MOHAI <sup>9</sup>	68	27	0	0	0		68	0	0	0	91	36	0	0	0	0	91	0	0	
Schools/Students	22.7	EDU	MOHAI <sup>10aβ</sup>	73	49	0	220	147	0	73	0	220	0	210	140	0	629	420	0	210	0	629	
Visitors (Individual)	3	EDU	MOHAI <sup>11</sup>	5	5	0	5	5	0	5	0	5	0	5	5	0	7	7	0	5	0	7	
Volunteer	1.25	EDU	MOHAI <sup>12</sup>																				
Employee		EDU	NW Seaport <sup>13</sup>																				
Schools/Students		EDU	NW Seaport <sup>13A</sup>																				
Visitors (Individual)		EDU	NW Seaport <sup>13B</sup>							120	120	120	120						120	120	120	120	
Volunteer		EDU	NW Seaport <sup>13C</sup>	2	2	0	3	4	0	10	10	20	20	2	2	0	3	4	0	10	10	20	
Employee		EDU	United Indians of All Tribes <sup>16</sup>	7	14	0	11	20	20	24	24	30	30	10	5	10	16	16	16	24	24	30	
Schools/Students		EDU	United Indians of All Tribes <sup>16</sup>	6	12	0	6	25	25	12	0	25	25	6	14	12	0	0	6	12	0	25	
Visitors (Individual)		EDU	United Indians of All Tribes <sup>16</sup>	60	150	0	85	250	250	200	200	500	500	85	150	5	250	250	250	200	200	500	
Volunteer		EDU	United Indians of All Tribes <sup>16</sup>	3	7	0	6	10	10	12	12	15	15	5	7	85	8	8	8	12	12	15	
Volunteer		EVT	MOHAI Openings <sup>17ε</sup>																				
Employee		EVT	MOHAI Openings/Special Events <sup>18</sup>																				
Visitors (Individual)		EVT	MOHAI Openings/Special Events <sup>19δ</sup>	0	0	0	0	0	0	400	400	400	400	0	0	0	0	0	0	400	0	400	
Visitors (Individual)		EVT	Center for Wooden Boats <sup>20ε</sup>	0	0	0	0	0	0			4000		0	0	0	0	0	0			4000	
Employee		EVT	Center for Wooden Boats <sup>21</sup>																				
Employee		EVT	SLU (all offices in Armory)	60	60	0	0	0	0					0	0	0	0	0	0				
Volunteer		EVT	SLU <sup>22</sup>	0	0	0	0	0	0					0	0	0	0	0	0				
Employee		EVT	Historic Ships Wharf, Virginia V <sup>24ε</sup>	0	0	0	0	0	0	25	25	25	25	0	0	0	0	0	0	25	25	25	
Visitors (Individual)		EVT	Historic Ships Wharf, Virginia V <sup>25ε</sup>	0	0	0	0	0	0	150	150	150	150	0	0	0	0	0	0	150	150	150	
Schools/Students		EVT	Historic Ships Wharf, Virginia V <sup>26</sup>	0	0	0	0	0	0	0	0	0	0										
Employee		ONP	Businesses/Office/Non-Profits <sup>28</sup>	0	0	0	0	0	0					0	0	0	0	0	0				
Visitors (Individual)		ONP	Businesses/Office/Non-Profits <sup>29</sup>	0	0	0	0	0	0					0	0	0	0	0	0				
Volunteer		ONP	Businesses/Office/Non-Profits <sup>30</sup>	0	0	0	0	0	0					0	0	0	0	0	0				
Employee		ONP	General Seattle Park Maintenance <sup>31</sup>	0	0	0	0	0	0					0	0	0	0	0	0				
Visitors (Individual)		REC	Interpretive Trail, Model boat pond, fountains, Trails/Wildlife, Beach, Small Boats, Passive, Picnic, Kites, Fishing <sup>32</sup>																				
Sum				579	533	393	631	688	698	1734	1334	6165	1678	957	707	651	1350	1039	819	1402	1480	5978	
Max:				698										Max:	1350							1824	

1 Hours of Operation:-10-5pm winter,-10-6pm spr/fall,-10-8pm summer, 15,100/yr youth/school programs (projected)

2 Seasonal split: Winter/Summer assumed at 2.5:1ratio, Number of buses estimated:3 school year [winter] 2 summer. 600/day (current), 140,400/yr total for various uses (projected)

3 Seasonal split: Winter/Summer assumed at 1:2 ratio. Assumed weekend & weekday to be even, time split:1/3 before 3pm, 2/3 after 3 pm, visitor length of stay: workshop: 6-7 hrs-

4 30-50 volunteers for summer weekend + 2 per historical ship

5 During docked times, ship will be open for walk on visitors. 5 employees may be on board at this time. , Open tours, 3-6/day staff on board (current)

6 Planned educational program, numbers mirrors estimates for CWB student visitation -student length of stay: 3hrs, seasonal split: Winter/Summer assumed at 2.5:1ratio.

7 Walk-on visitation normally feeds off of visitors from nearby sites.

8 Volunteers listed under employee due to no numerical data specifically on volunteers. 30 trips each week by volunteers and crew for maintenance buring busy season

9 Length of stay: work from 8-5pm, future estimates assumed most employees on weekends to reflect visitation demand. 25 permanant staff, M\_F 8-5

10 Seasonal split: Winter/Summer assumed at 2.5:1ratio, Number of buses estimated present:3 school year [winter] 1 summer. Number of buses estimated future: 4 school year, 2 summer.

11 Length of stay: max of 1.5 hrs, Week split: Weekend/Weekday assumed at 3:1 ratio, avg occupants per vehicle: 3, museum hours: 10-5pm, most frequent visited hours: 12-5pm. 35000 annually, projected( 2012), 100,000 annually (10am -5pm, heavily weighted towards weekends)

12 Volunteers: length of stay: approx 2 hours. 170 volunteers on non-predictable schedule including weekends and evenings

13 no data on employee, no indication of increasing number of employees in future

13A Number of buses estimated : approximately 4-5 buses per week or 1 per day

13B Attendance: incmplete data for visitor attendance to workshops, no indication of increasing visitor attenance in future

13C Length of stay: 5.6 hours, avg vehicles per occupant estimated at .9

16 For UIT future data, no distinguishment was made for summer or winter. For future summer weekday, assumed same as current. Visitor stay approx 1.5 hrs. Avg vehicle occ same as other visitors (3). Future high activity, used same as current.

19 Frequency of events: 150 meetings/yr Approx 3 meetings/week, weekend to weekday ratio: 1:1, vistor attendance: ranges from 200-400. future is expected to be evening only.

20 Frequency of events 1 to 2 times/yr, visitor attendance:2k to 5k visitors during festival.

21 52,400/yr (50,000 max at single event) (projected)

22 Listed under SLU parks

24 At-sea: most will be 25 crew and support personnel.(150 -200 events/yr) 175 max (150 max on-board cap) mid-morning to midnight

26 Seasons of operation: April to Jan, time of events:most cruises in evenings, frequency of events: 150-200 max events/yr.

28 Listed under SLU parks

29 Listed under SLU parks

30 Listed under SLU parks

31 Listed under SLU parks

32 ITE Parking generation handbook was used in analysis for estimating the parking generated per acre of park, no data on actual number of visitors

α Students per bus ratio based on MOHAI of 3 buses daily during school year & average of 68 students/day.

β Winter in this category refers to school year (Sept thru June)

δ These events are listed under high demand, they do not represent regular/typical use, it might be recommended that they be coordinated with each other to prevent overlap.

# Present

## Typical Summer Weekday

Land Use Attendance Description Vehicles per person	MOHAI visitors 0.33	MOHAI employees 0.80	MOHAI volunteers 0.80	CWB 515 visitors <sup>2</sup> 0.5	CWB 50 volunteers 0.80	NW Seaport 2 volunteers 0.90	Armory Offices 60 employees 0.80	Park <sup>3</sup> vehicles per acre: 5.10	UIT 14 employees 0.80	UIT 7 volunteers 0.80	UIT 150 Visitors 0.33	Parking Demand
Average Stay	1.5	9	2	4.5	4	5.6	9	6	9	2	1.5	
	%daily visitors distributed parking used	% employee parking used	% volunteers parking used	%daily visitors distributed parking used	% volunteers parking used	% volunteers parking used	% volunteers parking used	% parking used	% employee parking used	% volunteers parking used	% parking used	
12:00-4:00AM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
5:00AM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
6:00 AM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
7:00 AM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
8:00 AM	0% 0	11% 20	11% 1	0% 0	0% 0	0% 0	11% 48	20% 6	11% 11	11% 1	0% 0	87
9:00 AM	0% 0	11% 20	11% 1	0% 0	0% 0	0% 0	11% 48	40% 12	11% 11	11% 1	0% 0	94
10:00 AM	8% 2	11% 20	11% 1	6% 66	3% 5	10% 1	11% 48	60% 18	11% 11	11% 1	8% 6	179
11:00 AM	8% 2	11% 20	11% 1	7% 80	3% 5	10% 1	11% 48	80% 24	11% 11	11% 1	8% 6	199
12:00 PM	14% 4	11% 20	11% 1	7% 80	3% 5	10% 1	11% 48	100% 31	11% 11	11% 1	14% 11	212
1:00 PM	18% 4	11% 20	11% 1	7% 80	3% 5	10% 1	11% 48	100% 31	11% 11	11% 1	18% 14	215
2:00 PM	18% 4	11% 20	11% 1	9% 107	3% 5	10% 1	11% 48	100% 31	11% 11	11% 1	18% 14	242
3:00 PM	18% 4	11% 20	11% 1	12% 133	17% 27	10% 1	11% 48	100% 31	11% 11	11% 1	18% 14	290
4:00 PM	14% 4	11% 20	11% 1	14% 160	17% 27	10% 1	11% 48	100% 31	11% 11	11% 1	14% 11	313
5:00 PM	0% 0	0% 0	0% 0	14% 160	17% 27	10% 1	0% 0	80% 24	0% 0	0% 0	0% 0	211
6:00 PM	0% 0	0% 0	0% 0	14% 160	17% 27	10% 1	0% 0	60% 18	0% 0	0% 0	0% 0	205
7:00 PM	0% 0	0% 0	0% 0	12% 133	17% 27	10% 1	0% 0	40% 12	0% 0	0% 0	0% 0	172
8:00 PM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	20% 6	0% 0	0% 0	0% 0	6
9:00 PM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
10:00 PM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
11:00 PM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
Maximum	4	20	1	160	27	1	48	31	11	1		313

Notes:

1. Visitors for walk on tours assumed to feed off of other park uses.
2. Visitors stay averages from workshop and sailing lesson stay times (6-7 & 2-3hrs). Summer hours 10am to 8pm. Occupancy per vehicle assumed at 2.
3. ITE Parking Generation 3rd Ed. Land Use 411 City Park with administration building.

## Present Typical Summer Weekend

Land Use	MOHAI	MOHAI	MOHAI	CWB	CWB	NW Seaport	Park <sup>3</sup>	UIT	UIT	UIT	Parking Demand
Attendance	147.0	5.0	5.0	515	50	4	vehicles per	20	10	250	
Decription	visitors	employees	volunteers	visitors <sup>2</sup>	volunteers	volunteers	acre:	employees	volunteers	Vistiors	
Vehicles per person	0.33	0.80	0.80	0.5	0.80	0.90	5.10	0.80	0.80	0.33	
Average Stay	1.5	9	2	4.5	4	5.6	6	9	2	1.5	
	%daily visitors distributed parking used	% employee parking used	% volunteers parking used	%daily visitors distributed parking used	% volunteers parking used	% volunteers parking used	% parking used	% employee parking used	% volunteers parking used	% parking used	
12:00-4:00AM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
5:00AM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
6:00 AM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
7:00 AM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
8:00 AM	0% 0	11% 4	11% 1	0% 0	0% 0	0% 0	20% 6	11% 16	11% 2	0% 0	29
9:00 AM	0% 0	11% 4	11% 1	0% 0	0% 0	0% 0	40% 12	11% 16	11% 2	0% 0	35
10:00 AM	8% 6	11% 4	11% 1	6% 66	10% 16	10% 2	60% 18	11% 16	11% 2	8% 10	140
11:00 AM	8% 6	11% 4	11% 1	7% 80	10% 16	10% 2	80% 24	11% 16	11% 2	8% 10	160
12:00 PM	14% 11	11% 4	11% 1	7% 80	10% 16	10% 2	100% 31	11% 16	11% 2	14% 18	178
1:00 PM	18% 13	11% 4	11% 1	7% 80	10% 16	10% 2	100% 31	11% 16	11% 2	18% 23	185
2:00 PM	18% 13	11% 4	11% 1	9% 107	10% 16	10% 2	100% 31	11% 16	11% 2	18% 23	212
3:00 PM	18% 13	11% 4	11% 1	12% 133	10% 16	10% 2	100% 31	11% 16	11% 2	18% 23	238
4:00 PM	14% 11	11% 4	11% 1	14% 160	10% 16	10% 2	100% 31	11% 16	11% 2	14% 18	258
5:00 PM	0% 0	0% 0	0% 0	14% 160	10% 16	10% 2	80% 24	0% 0	0% 0	0% 0	200
6:00 PM	0% 0	0% 0	0% 0	14% 160	10% 16	10% 2	60% 18	0% 0	0% 0	0% 0	194
7:00 PM	0% 0	0% 0	0% 0	12% 133	10% 16	10% 2	40% 12	0% 0	0% 0	0% 0	161
8:00 PM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	20% 6	0% 0	0% 0	0% 0	6
9:00 PM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
10:00 PM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
11:00 PM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
Maximum	13	4	1	160	16	2	31	16	2	23	258

Notes: 1 Visitors for walk on tours assumed to feed off of other park uses.

2. Visitors stay averages from workshop and sailing lesson stay times (6-7 & 2-3hrs). Summer hours 10am to 8pm. Occupancy per vehicle assumed at 2.

3. ITE Parking Generation 3rd Ed. Land Use 411 City Park with administration building.

**Present**  
**Typical Winter Weekday**

Land Use	MOHAI	MOHAI	MOHAI	CWB	CWB	NW	Armory	Park <sup>3</sup>	UIT	UIT	UIT	Parking Demand
Attendance	73.0	25.0	5.0	260	10	2	60	vehicles per	7	3	60	
Decription	visitors	employees	volunteers	visitors <sup>2</sup>	volunteers	volunteers	employees	acre:	employees	volunteers	Vistiors	
Vehicles per person	0.33	0.80	0.80	0.5	0.80	0.90	0.80	5.10	0.80	0.80	0.33	
Average Stay	1.5	9	2	4.5	4	5.6	9	6	9	2	1.5	
	%daily visitors distributed	% employee parking used	% volunteers parking used	%daily visitors distributed	% volunteers parking used	% volunteers parking used	% volunteers parking used	% parking used	% employee parking used	% volunteers parking used	% parking used	
12:00-4:00AM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
5:00AM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
6:00 AM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
7:00 AM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
8:00 AM	0% 0	11% 20	11% 1	0% 0	0% 0	0% 0	11% 48	20% 6	11% 6	11% 1	0% 0	81
9:00 AM	0% 0	11% 20	11% 1	0% 0	0% 0	0% 0	11% 48	40% 12	11% 6	11% 1	0% 0	87
10:00 AM	8% 3	11% 20	11% 1	6% 33	10% 3	10% 1	11% 48	60% 18	11% 6	11% 1	8% 2	135
11:00 AM	8% 3	11% 20	11% 1	7% 40	10% 3	10% 1	11% 48	80% 24	11% 6	11% 1	8% 2	149
12:00 PM	14% 5	11% 20	11% 1	7% 40	10% 3	10% 1	11% 48	100% 31	11% 6	11% 1	14% 4	159
1:00 PM	18% 7	11% 20	11% 1	7% 40	10% 3	10% 1	11% 48	100% 31	11% 6	11% 1	18% 5	161
2:00 PM	18% 7	11% 20	11% 1	9% 54	10% 3	10% 1	11% 48	100% 31	11% 6	11% 1	18% 5	175
3:00 PM	18% 7	11% 20	11% 1	12% 67	10% 3	10% 1	11% 48	100% 31	11% 6	11% 1	18% 5	188
4:00 PM	14% 5	11% 20	11% 1	14% 81	10% 3	10% 1	11% 48	100% 31	11% 6	11% 1	14% 4	199
5:00 PM	0% 0	0% 0	0% 0	14% 81	10% 3	10% 1	0% 0	80% 24	0% 0	0% 0	0% 0	108
6:00 PM	0% 0	0% 0	0% 0	14% 81	10% 3	10% 1	0% 0	60% 18	0% 0	0% 0	0% 0	102
7:00 PM	0% 0	0% 0	0% 0	12% 67	10% 3	10% 1	0% 0	40% 12	0% 0	0% 0	0% 0	83
8:00 PM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	20% 6	0% 0	0% 0	0% 0	6
9:00 PM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
10:00 PM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
11:00 PM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
Maximum	7	20	1	81	3	1	48	31	6	1	5	199

- Notes:
- 1 Visitors for walk on tours assumed to feed off of other park uses.
  2. Visitors stay averages from workshop and sailing lesson stay times (6-7 & 2-3hrs). Summer hours 10am to 8pm. Occupancy per vehicle assumed at 2.
  3. ITE Parking Generation 3rd Ed. Land Use 411 City Park with administration building.

## Present Typical Winter Weekend

Land Use	MOHAI	MOHAI	MOHAI	CWB	CWB	NW Seaport	Park <sup>3</sup>	UIT	UIT	UIT	Parking Demand
Attendance	220.0	5.0	5.0	260	30	3	vehicles per	11	6	85	
Decription	visitors	employees	volunteers	visitors <sup>2</sup>	volunteers	volunteers	acre:	employees	volunteers	Vistiors	
Vehicles per person	0.33	0.80	0.80	0.5	0.80	0.90	5.10	0.80	0.80	0.33	
Average Stay	1.5	9	2	4.5	4	5.6	6	9	2	1.5	
	%daily visitors distributed parking used	% employee parking used	% volunteers parking used	%daily visitors distributed parking used	% volunteers parking used	% volunteers parking used	% parking used	% employee parking used	% volunteers parking used	% parking used	
12:00-4:00AM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
5:00AM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
6:00 AM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
7:00 AM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
8:00 AM	0% 0	11% 4	11% 1	0% 0	0% 0	0% 0	20% 6	11% 9	11% 1	0% 0	21
9:00 AM	0% 0	11% 4	11% 1	0% 0	0% 0	0% 0	40% 12	11% 9	11% 1	0% 0	27
10:00 AM	8% 9	11% 4	11% 1	6% 33	10% 10	10% 2	60% 18	11% 9	11% 1	8% 4	89
11:00 AM	8% 9	11% 4	11% 1	7% 40	10% 10	10% 2	80% 24	11% 9	11% 1	8% 4	102
12:00 PM	14% 16	11% 4	11% 1	7% 40	10% 10	10% 2	100% 31	11% 9	11% 1	14% 6	117
1:00 PM	18% 20	11% 4	11% 1	7% 40	10% 10	10% 2	100% 31	11% 9	11% 1	18% 8	123
2:00 PM	18% 20	11% 4	11% 1	9% 54	10% 10	10% 2	100% 31	11% 9	11% 1	18% 8	136
3:00 PM	18% 20	11% 4	11% 1	12% 67	10% 10	10% 2	100% 31	11% 9	11% 1	18% 8	150
4:00 PM	14% 16	11% 4	11% 1	14% 81	10% 10	10% 2	100% 31	11% 9	11% 1	14% 6	158
5:00 PM	0% 0	0% 0	0% 0	14% 81	10% 10	10% 2	80% 24	0% 0	0% 0	0% 0	115
6:00 PM	0% 0	0% 0	0% 0	14% 81	10% 10	10% 2	60% 18	0% 0	0% 0	0% 0	109
7:00 PM	0% 0	0% 0	0% 0	12% 67	10% 10	10% 2	40% 12	0% 0	0% 0	0% 0	89
8:00 PM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	20% 6	0% 0	0% 0	0% 0	6
9:00 PM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
10:00 PM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
11:00 PM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
Maximum	20	4	1	81	10	2	31	9	1	8	158

Notes: 1 Visitors for walk on tours assumed to feed off of other park uses.

2. Visitors stay averages from workshop and sailing lesson stay times (6-7 & 2-3hrs). Summer hours 10am to 8pm. Occupancy per vehicle assumed at 2.

3. ITE Parking Generation 3rd Ed. Land Use 411 City Park with administration building.

## Future Typical Summer Weekday

Land Use Attendance Description Vehicles per person	MOHAI 140.0 visitors 0.33	MOHAI 25.0 employees 0.80	MOHAI 5.0 volunteers 0.80	Virigina V 5 employees 0.80	CWB 733 visitors² 0.5	CWB 50 volunteers 0.80	NW Seaport 2 volunteers 0.90	Park³ vehicles per acre: 5.10	UIT 5 employees 0.80	UIT 7 volunteers 0.80	UIT 150 Vistiors 0.33	Parking Demand
Average Stay	1.5	9	2	9	4.5	4	5.6	6	9	2	1.5	
	%daily visitors distributed parking used	% employee parking used	% volunteers parking used	% employee parking used	%daily visitors distributed parking used	% volunteers parking used	% volunteers parking used	% parking used	% employee parking used	% volunteers parking used	% parking used	
12:00-4:00AM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
5:00AM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
6:00 AM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
7:00 AM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
8:00 AM	0% 0	11% 20	11% 1	0% 0	0% 0	0% 0	0% 0	20% 6	11% 4	11% 1	0% 0	32
9:00 AM	0% 0	11% 20	11% 1	11% 4	0% 0	0% 0	0% 0	40% 12	11% 4	11% 1	0% 0	42
10:00 AM	8% 6	11% 20	11% 1	11% 4	6% 94	3% 5	10% 1	60% 18	11% 4	11% 1	8% 6	160
11:00 AM	8% 6	11% 20	11% 1	11% 4	7% 114	3% 5	10% 1	80% 24	11% 4	11% 1	8% 6	186
12:00 PM	14% 10	11% 20	11% 1	11% 4	7% 114	3% 5	10% 1	100% 31	11% 4	11% 1	14% 11	201
1:00 PM	18% 13	11% 20	11% 1	11% 4	7% 114	3% 5	10% 1	100% 31	11% 4	11% 1	18% 14	206
2:00 PM	18% 13	11% 20	11% 1	11% 4	9% 152	3% 5	10% 1	100% 31	11% 4	11% 1	18% 14	244
3:00 PM	18% 13	11% 20	11% 1	11% 4	12% 190	17% 27	10% 1	100% 31	11% 4	11% 1	18% 14	303
4:00 PM	14% 10	11% 20	11% 1	11% 4	14% 228	17% 27	10% 1	100% 31	11% 4	11% 1	14% 11	336
5:00 PM	0% 0	0% 0	0% 0	11% 4	14% 228	17% 27	10% 1	80% 24	0% 0	0% 0	0% 0	283
6:00 PM	0% 0	0% 0	0% 0	0% 0	14% 228	17% 27	10% 1	60% 18	0% 0	0% 0	0% 0	273
7:00 PM	0% 0	0% 0	0% 0	0% 0	12% 190	17% 27	10% 1	40% 12	0% 0	0% 0	0% 0	229
8:00 PM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	20% 6	0% 0	0% 0	0% 0	6
9:00 PM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
10:00 PM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
11:00 PM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
Maximum	13	20	1	4	228	27	1	31	4	1	14	336

Notes: 1 Visitors for walk on tours assumed to feed off of other park uses.  
2. Visitors stay averages from workshop and sailing lesson stay times (6-7 & 2-3hrs). Summer hours 10am to 8pm. Occupancy per vehicle assumed at 2.  
3. ITE Parking Generation 3rd Ed. Land Use 411 City Park with administration building.



## Future Typical Summer Weekend

Land Use Attendance Description Vehicles per person	MOHAI 420.0 visitors 0.33	MOHAI 35.0 employees 0.80	MOHAI 7.0 volunteers 0.80	Virigina V 5 employees 0.80	CWB 733 visitors <sup>2</sup> 0.5	CWB 50 volunteers 0.80	NW Seaport 4 volunteers 0.90	Park <sup>3</sup> vehicles per acre: 5.10	UIT 16 employees 0.80	UIT 8 volunteers 0.80	UIT 250 Vistiors 0.33	Parking Demand
Average Stay	1.5	9	2	9	4.5	4	5.6	6	9	2	1.5	
	%daily visitors distributed parking used	% employee parking used	% volunteers parking used	% employee parking used	%daily visitors distributed parking used	% volunteers parking used	% volunteers parking used	% parking used	% employee parking used	% volunteers parking used	% parking used	
12:00-4:00AM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
5:00AM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
6:00 AM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
7:00 AM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
8:00 AM	0% 0	11% 28	11% 1	0% 0	0% 0	0% 0	0% 0	20% 6	11% 13	11% 1	0% 0	50
9:00 AM	0% 0	11% 28	11% 1	11% 4	0% 0	0% 0	0% 0	40% 12	11% 13	11% 1	0% 0	60
10:00 AM	8% 17	11% 28	11% 1	11% 4	6% 94	10% 16	10% 2	60% 18	11% 13	11% 1	8% 10	204
11:00 AM	8% 17	11% 28	11% 1	11% 4	7% 114	10% 16	10% 2	80% 24	11% 13	11% 1	8% 10	230
12:00 PM	14% 30	11% 28	11% 1	11% 4	7% 114	10% 16	10% 2	100% 31	11% 13	11% 1	14% 18	256
1:00 PM	18% 38	11% 28	11% 1	11% 4	7% 114	10% 16	10% 2	100% 31	11% 13	11% 1	18% 23	268
2:00 PM	18% 38	11% 28	11% 1	11% 4	9% 152	10% 16	10% 2	100% 31	11% 13	11% 1	18% 23	306
3:00 PM	18% 38	11% 28	11% 1	11% 4	12% 190	10% 16	10% 2	100% 31	11% 13	11% 1	18% 23	344
4:00 PM	14% 30	11% 28	11% 1	11% 4	14% 228	10% 16	10% 2	100% 31	11% 13	11% 1	14% 18	370
5:00 PM	0% 0	0% 0	0% 0	11% 4	14% 228	10% 16	10% 2	80% 24	0% 0	0% 0	0% 0	272
6:00 PM	0% 0	0% 0	0% 0	0% 0	14% 228	10% 16	10% 2	60% 18	0% 0	0% 0	0% 0	262
7:00 PM	0% 0	0% 0	0% 0	0% 0	12% 190	10% 16	10% 2	40% 12	0% 0	0% 0	0% 0	218
8:00 PM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	20% 6	0% 0	0% 0	0% 0	6
9:00 PM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
10:00 PM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
11:00 PM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
Maximum	38	28	1	4	228	16	2	31	13	1	23	370

Notes: 1 Visitors for walk on tours assumed to feed off of other park uses.  
2. Visitors stay averages from workshop and sailing lesson stay times (6-7 & 2-3hrs). Summer hours 10am to 8pm. Occupancy per vehicle assumed at 2.  
3. ITE Parking Generation 3rd Ed. Land Use 411 City Park with administration building.

## Future Typical Winter Weekday

Land Use Attendance Description Vehicles per person	MOHAI 210.0 visitors 0.33	MOHAI 25.0 employees 0.80	MOHAI 5.0 volunteers 0.80	Virigina V 5 employees 0.80	CWB 367 visitors <sup>2</sup> 0.5	CWB 10 volunteers 0.80	NW Seaport 2 volunteers 0.90	Park <sup>3</sup> vehicles per acre: 5.10	UIT 10 employees 0.80	UIT 5 volunteers 0.80	UIT 85 Vistiors 0.33	Parking Demand
Average Stay	1.5	9	2	9	4.5	4	5.6	6	9	2	1.5	
	%daily visitors distributed parking used	% employee parking used	% volunteers parking used	% employee parking used	%daily visitors distributed parking used	% volunteers parking used	% volunteers parking used	% parking used	% employee parking used	% volunteers parking used	% parking used	
12:00-4:00AM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
5:00AM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
6:00 AM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
7:00 AM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
8:00 AM	0% 0	11% 20	11% 1	0% 0	0% 0	0% 0	0% 0	20% 6	11% 8	11% 1	0% 0	36
9:00 AM	0% 0	11% 20	11% 1	11% 4	0% 0	0% 0	0% 0	40% 12	11% 8	11% 1	0% 0	46
10:00 AM	8% 9	11% 20	11% 1	11% 4	6% 47	10% 3	10% 1	60% 18	11% 8	11% 1	8% 4	115
11:00 AM	8% 9	11% 20	11% 1	11% 4	7% 57	10% 3	10% 1	80% 24	11% 8	11% 1	8% 4	131
12:00 PM	14% 15	11% 20	11% 1	11% 4	7% 57	10% 3	10% 1	100% 31	11% 8	11% 1	14% 6	146
1:00 PM	18% 19	11% 20	11% 1	11% 4	7% 57	10% 3	10% 1	100% 31	11% 8	11% 1	18% 8	151
2:00 PM	18% 19	11% 20	11% 1	11% 4	9% 76	10% 3	10% 1	100% 31	11% 8	11% 1	18% 8	170
3:00 PM	18% 19	11% 20	11% 1	11% 4	12% 95	10% 3	10% 1	100% 31	11% 8	11% 1	18% 8	189
4:00 PM	14% 15	11% 20	11% 1	11% 4	14% 114	10% 3	10% 1	100% 31	11% 8	11% 1	14% 6	203
5:00 PM	0% 0	0% 0	0% 0	11% 4	14% 114	10% 3	10% 1	80% 24	0% 0	0% 0	0% 0	146
6:00 PM	0% 0	0% 0	0% 0	0% 0	14% 114	10% 3	10% 1	60% 18	0% 0	0% 0	0% 0	135
7:00 PM	0% 0	0% 0	0% 0	0% 0	12% 95	10% 3	10% 1	40% 12	0% 0	0% 0	0% 0	110
8:00 PM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	20% 6	0% 0	0% 0	0% 0	6
9:00 PM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
10:00 PM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
11:00 PM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
Maximum	19	20	1	4	114	3	1	31	8	1	8	203

Notes: 1 Visitors for walk on tours assumed to feed off of other park uses.  
2. Visitors stay averages from workshop and sailing lesson stay times (6-7 & 2-3hrs). Summer hours 10am to 8pm. Occupancy per vehicle assumed at 2.  
3. ITE Parking Generation 3rd Ed. Land Use 411 City Park with administration building.

## Future Typical Winter Weekend

Land Use Attendance Description Vehicles per person	MOHAI 629.0 visitors	MOHAI 35.0 employees	MOHAI 7.0 volunteers	Virigina V 5 employees	CWB 367 visitors <sup>2</sup>	CWB 30 volunteers	NW Seaport 3 volunteers	Park <sup>3</sup> vehicles per acre:	UIT 16 employees	UIT 8 volunteers	UIT 250 Vistiors	Parking Demand
Average Stay	1.5	9	2	9	4.5	4	5.6	6	9	2	1.5	
	%daily visitors distributed	% employee parking used	% volunteers parking used	% employee parking used	%daily visitors distributed	% volunteers parking used	% volunteers parking used	% parking used	% employee parking used	% volunteers parking used	% parking used	
12:00-4:00AM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
5:00AM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
6:00 AM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
7:00 AM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
8:00 AM	0% 0	11% 28	11% 1	0% 0	0% 0	0% 0	0% 0	20% 6	11% 13	11% 1	0% 0	50
9:00 AM	0% 0	11% 28	11% 1	11% 4	0% 0	0% 0	0% 0	40% 12	11% 13	11% 1	0% 0	60
10:00 AM	8% 26	11% 28	11% 1	11% 4	6% 47	10% 10	10% 2	60% 18	11% 13	11% 1	8% 10	159
11:00 AM	8% 26	11% 28	11% 1	11% 4	7% 57	10% 10	10% 2	80% 24	11% 13	11% 1	8% 10	175
12:00 PM	14% 45	11% 28	11% 1	11% 4	7% 57	10% 10	10% 2	100% 31	11% 13	11% 1	14% 18	208
1:00 PM	18% 57	11% 28	11% 1	11% 4	7% 57	10% 10	10% 2	100% 31	11% 13	11% 1	18% 23	224
2:00 PM	18% 57	11% 28	11% 1	11% 4	9% 76	10% 10	10% 2	100% 31	11% 13	11% 1	18% 23	243
3:00 PM	18% 57	11% 28	11% 1	11% 4	12% 95	10% 10	10% 2	100% 31	11% 13	11% 1	18% 23	262
4:00 PM	14% 45	11% 28	11% 1	11% 4	14% 114	10% 10	10% 2	100% 31	11% 13	11% 1	14% 18	265
5:00 PM	0% 0	0% 0	0% 0	11% 4	14% 114	10% 10	10% 2	80% 24	0% 0	0% 0	0% 0	152
6:00 PM	0% 0	0% 0	0% 0	0% 0	14% 114	10% 10	10% 2	60% 18	0% 0	0% 0	0% 0	142
7:00 PM	0% 0	0% 0	0% 0	0% 0	12% 95	10% 10	10% 2	40% 12	0% 0	0% 0	0% 0	117
8:00 PM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	20% 6	0% 0	0% 0	0% 0	6
9:00 PM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
10:00 PM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
11:00 PM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
Maximum	57	28	1	4	114	10	2	31	13	1	23	265

Notes: 1 Visitors for walk on tours assumed to feed off of other park uses.  
2. Visitors stay averages from workshop and sailing lesson stay times (6-7 & 2-3hrs). Summer hours 10am to 8pm. Occupancy per vehicle assumed at 2.  
3. ITE Parking Generation 3rd Ed. Land Use 411 City Park with administration building.

**Present**  
**High Demand Weekday**

Land Use Attendance Description Vehicles per person	MOHAI 73.0 visitors 0.33		MOHAI 800.0 meetings 0.33		MOHAI 25.0 employees 0.80		MOHAI 5.0 volunteers 0.80		Virginia V 300 visitors³ 0.50		Virigina V 25 employees¹ 0.80		CWB 943 visitors² 0.5		CWB 60 volunteers 0.80		NW Seaport 120 visitors 0.50		NW Seaport 10 volunteers 0.90		Park⁴ vehicles per acre: 5.10		UIT 24 employees 0.80		UIT 12 volunteers 0.80		UIT 200 Vistiors 0.33		Parking Demand
Average Stay	1.5		4		9		2		4.5		10		4.5		4		5		5.6		6		9		2		1.5		
	%daily visitors distributed parking used		%daily visitors distributed parking used		% employee parking used		% volunteers parking used		% volunteers parking used		% employee parking used		%daily visitors distributed parking used		% volunteers parking used		% volunteers parking used		% parking used		% employee parking used		% volunteers parking used		% parking used				
12:00-4:00AM	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0
5:00AM	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0
6:00 AM	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0
7:00 AM	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0
8:00 AM	0%	0	0%	0	11%	20	11%	1	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	20%	6	11%	19	11%	2	0%	0	48
9:00 AM	0%	0	0%	0	11%	20	11%	1	6%	38	11%	22	0%	0	0%	0	0%	0	0%	0	40%	12	11%	19	11%	2	0%	0	114
10:00 AM	8%	3	0%	0	11%	20	11%	1	11%	75	11%	22	6%	121	3%	6	0%	0	10%	5	60%	18	11%	19	11%	2	8%	8	302
11:00 AM	8%	3	0%	0	11%	20	11%	1	11%	75	11%	22	7%	146	3%	6	0%	0	10%	5	80%	24	11%	19	11%	2	8%	8	333
12:00 PM	14%	5	13%	133	11%	20	11%	1	11%	75	11%	22	7%	146	3%	6	0%	0	10%	5	100%	31	11%	19	11%	2	14%	14	481
1:00 PM	18%	7	13%	133	11%	20	11%	1	11%	75	11%	22	7%	146	3%	6	0%	0	10%	5	100%	31	11%	19	11%	2	18%	18	486
2:00 PM	18%	7	13%	133	11%	20	11%	1	6%	38	11%	22	9%	195	3%	6	0%	0	10%	5	100%	31	11%	19	11%	2	18%	18	497
3:00 PM	18%	7	13%	133	11%	20	11%	1	6%	38	11%	22	12%	244	17%	32	0%	0	10%	5	100%	31	11%	19	11%	2	18%	18	572
4:00 PM	14%	5	13%	133	11%	20	11%	1	11%	75	11%	22	14%	293	17%	32	0%	0	10%	5	100%	31	11%	19	11%	2	14%	14	653
5:00 PM	0%	0	13%	133	0%	0	0%	0	11%	75	11%	22	14%	293	17%	32	0%	0	10%	5	80%	24	0%	0	0%	0	0%	0	585
6:00 PM	0%	0	13%	133	0%	0	0%	0	11%	75	0%	0	14%	293	17%	32	0%	0	10%	5	60%	18	0%	0	0%	0	0%	0	557
7:00 PM	0%	0	13%	133	0%	0	0%	0	11%	75	0%	0	12%	244	17%	32	20%	60	10%	5	40%	12	0%	0	0%	0	0%	0	562
8:00 PM	0%	0	0%	0	0%	0	0%	0	6%	38	0%	0	0%	0	0%	0	20%	60	0%	0	20%	6	0%	0	0%	0	0%	0	104
9:00 PM	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	20%	60	0%	0	0%	0	0%	0	0%	0	0%	0	60
10:00 PM	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	20%	60	0%	0	0%	0	0%	0	0%	0	0%	0	60
11:00 PM	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	20%	60	0%	0	0%	0	0%	0	0%	0	0%	0	60
Maximum	7	133	20	1	75	22	293	32	60	5	31	19	2	18	653														

- Notes:
- 1 Visitors for walk on tours assumed to feed off of other park uses.
  2. Visitors stay averages from workshop and sailing lesson stay times (6-7 & 2-3hrs). Summer hours 10am to 8pm. Occupancy per vehicle assumed at 2.
  - 3 Virginia V high demand estimates are assuming two full charter ships one in day and one in evening, each lasting approx 4 hours.
  4. ITE Parking Generation 3rd Ed. Land Use 411 City Park with administration building.

## Present High Demand Weekend

Land Use	MOHAI	MOHAI	MOHAI	MOHAI	Virginia V	Virigina V	CWB	CWB	NW	NW	Park <sup>4</sup>	UIT	UIT	UIT	Parking Demand
Attendance	220.0	800.0	5.0	5.0	300	25	943	100	120	20	vehicles per acre:	30	15	500	
Decription	visitors	Meetings	employees	volunteers	visitors <sup>3</sup>	employees <sup>3</sup>	visitors <sup>2</sup>	volunteers	visitors	volunteers		employees	volunteers	Vistiors	
Vehicles per person	0.33	0.33	0.80	0.80	0.50	0.80	0.5	0.80	0.50	0.90	5.10	0.80	0.80	0.33	
Average Stay	1.5	4	9	2	4.5	10	4.5	4	5	5.6	6	9	2	1.5	
	%daily visitors distributed	%daily visitors distributed	% employee parking used	% volunteers parking used	% volunteers parking used	% employee parking used	%daily visitors distributed	% volunteers parking used	% volunteers parking used	% volunteers parking used	% parking used	% employee parking used	% volunteers parking used	% parking used	
12:00-4:00AM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
5:00AM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
6:00 AM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
7:00 AM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
8:00 AM	0% 0	0% 0	0% 0	11% 4	11% 1	0% 0	0% 0	0% 0	0% 0	0% 0	20% 6	11% 24	11% 3	0% 0	38
9:00 AM	0% 0	0% 0	11% 4	11% 1	6% 38	11% 22	0% 0	0% 0	0% 0	0% 0	40% 12	11% 24	11% 3	0% 0	104
10:00 AM	8% 9	0% 0	11% 4	11% 1	11% 75	11% 22	6% 121	3% 11	0% 0	10% 10	60% 18	11% 24	11% 3	8% 21	319
11:00 AM	8% 9	0% 0	11% 4	11% 1	11% 75	11% 22	7% 146	3% 11	0% 0	10% 10	80% 24	11% 24	11% 3	8% 21	350
12:00 PM	14% 16	13% 133	11% 4	11% 1	11% 75	11% 22	7% 146	3% 11	0% 0	10% 10	100% 31	11% 24	11% 3	14% 36	512
1:00 PM	18% 20	13% 133	11% 4	11% 1	11% 75	11% 22	7% 146	3% 11	0% 0	10% 10	100% 31	11% 24	11% 3	18% 45	525
2:00 PM	18% 20	13% 133	11% 4	11% 1	6% 38	11% 22	9% 195	3% 11	0% 0	10% 10	100% 31	11% 24	11% 3	18% 45	536
3:00 PM	18% 20	13% 133	11% 4	11% 1	6% 38	11% 22	12% 244	17% 53	0% 0	10% 10	100% 31	11% 24	11% 3	18% 45	628
4:00 PM	14% 16	13% 133	11% 4	11% 1	11% 75	11% 22	14% 293	17% 53	0% 0	10% 10	100% 31	11% 24	11% 3	14% 36	701
5:00 PM	0% 0	13% 133	0% 0	0% 0	11% 75	11% 22	14% 293	17% 53	0% 0	10% 10	80% 24	0% 0	0% 0	0% 0	611
6:00 PM	0% 0	13% 133	0% 0	0% 0	11% 75	0% 0	14% 293	17% 53	0% 0	10% 10	60% 18	0% 0	0% 0	0% 0	583
7:00 PM	0% 0	13% 133	0% 0	0% 0	11% 75	0% 0	12% 244	17% 53	20% 60	10% 10	40% 12	0% 0	0% 0	0% 0	588
8:00 PM	0% 0	0% 0	0% 0	0% 0	6% 38	0% 0	0% 0	0% 0	20% 60	0% 0	20% 6	0% 0	0% 0	0% 0	104
9:00 PM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	20% 60	0% 0	0% 0	0% 0	0% 0	0% 0	60
10:00 PM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	20% 60	0% 0	0% 0	0% 0	0% 0	0% 0	60
11:00 PM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	20% 60	0% 0	0% 0	0% 0	0% 0	0% 0	60
Maximum	20	133	4	1	75	22	293	53	60	10	31	24	3	45	701

- Notes:
- 1 Visitors for walk on tours assumed to feed off of other park uses.
  2. Visitors stay averages from workshop and sailing lesson stay times (6-7 & 2-3hrs). Summer hours 10am to 8pm. Occupancy per vehicle assumed at 2.
  - 3 Virginia V high demand estimates are assuming two full charter ships one in day and one in evening, each lasting approx 4 hours.
  4. ITE Parking Generation 3rd Ed. Land Use 411 City Park with administration building.

## Future High Demand Weekday

Land Use Attendance Description Vehicles per person	MOHAI 210.0 visitors <sup>4</sup> 0.33	MOHAI 400.0 Meetings 0.33	MOHAI 25.0 employees 0.80	MOHAI 5.0 volunteers 0.80	Virginia V 300 visitors <sup>3</sup> 0.50	Virigina V 25 employees <sup>3</sup> 0.80	CWB 1340 visitors <sup>2</sup> 0.5	CWB 60 volunteers 0.80	NW Seaport 120 visitors 0.50	NW Seaport 10 volunteers 0.90	Park <sup>5</sup> vehicles per acre: 5.10	UIT 24 employees 0.80	UIT 12 volunteers 0.80	UIT 200 Vistiors 0.33	Parking Demand
Average Stay	1.5	4	9	2	4.5	10	4.5	4	5	5.6	6	9	2	1.5	
	%daily visitors distributed parking used	%daily visitors distributed parking used	% employee parking used	% volunteers parking used	% volunteers parking used	% employee parking used	%daily visitors distributed parking used	% volunteers parking used	% volunteers parking used	% volunteers parking used	% parking used	% employee parking used	% volunteers parking used	% parking used	
12:00-4:00AM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
5:00AM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
6:00 AM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
7:00 AM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
8:00 AM	0% 0	0% 0	11% 20	11% 1	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	20% 6	11% 19	11% 2	0% 0	48
9:00 AM	0% 0	0% 0	11% 20	11% 1	6% 38	11% 22	0% 0	0% 0	0% 0	0% 0	40% 12	11% 19	11% 2	0% 0	114
10:00 AM	8% 9	0% 0	11% 20	11% 1	11% 75	11% 22	6% 172	3% 6	0% 0	10% 5	60% 18	11% 19	11% 2	8% 8	358
11:00 AM	8% 9	0% 0	11% 20	11% 1	11% 75	11% 22	7% 208	3% 6	0% 0	10% 5	80% 24	11% 19	11% 2	8% 8	400
12:00 PM	14% 15	0% 0	11% 20	11% 1	11% 75	11% 22	7% 208	3% 6	0% 0	10% 5	100% 31	11% 19	11% 2	14% 14	419
1:00 PM	18% 19	0% 0	11% 20	11% 1	11% 75	11% 22	7% 208	3% 6	0% 0	10% 5	100% 31	11% 19	11% 2	18% 18	426
2:00 PM	18% 19	0% 0	11% 20	11% 1	6% 38	11% 22	9% 277	3% 6	0% 0	10% 5	100% 31	11% 19	11% 2	18% 18	458
3:00 PM	18% 19	0% 0	11% 20	11% 1	6% 38	11% 22	12% 347	17% 32	0% 0	10% 5	100% 31	11% 19	11% 2	18% 18	553
4:00 PM	14% 15	25% 133	11% 20	11% 1	11% 75	11% 22	14% 416	17% 32	0% 0	10% 5	100% 31	11% 19	11% 2	14% 14	786
5:00 PM	0% 0	25% 133	0% 0	0% 0	11% 75	11% 22	14% 416	17% 32	0% 0	10% 5	80% 24	0% 0	0% 0	0% 0	708
6:00 PM	0% 0	25% 133	0% 0	0% 0	11% 75	0% 0	14% 416	17% 32	0% 0	10% 5	60% 18	0% 0	0% 0	0% 0	680
7:00 PM	0% 0	25% 133	0% 0	0% 0	11% 75	0% 0	12% 347	17% 32	20% 60	10% 5	40% 12	0% 0	0% 0	0% 0	664
8:00 PM	0% 0	0% 0	0% 0	0% 0	6% 38	0% 0	0% 0	0% 0	20% 60	0% 0	20% 6	0% 0	0% 0	0% 0	104
9:00 PM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	20% 60	0% 0	0% 0	0% 0	0% 0	0% 0	60
10:00 PM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	20% 60	0% 0	0% 0	0% 0	0% 0	0% 0	60
11:00 PM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	20% 60	0% 0	0% 0	0% 0	0% 0	0% 0	60
Maximum	19	20	1	75	22	416	32	60	5	31	19	2	18	786	

- Notes:
- 1 Visitors for walk on tours assumed to feed off of other park uses.
  2. Visitors stay averages from workshop and sailing lesson stay times (6-7 & 2-3hrs). Summer hours 10am to 8pm. Occupancy per vehicle assumed at 2.
  - 3 Virginia V high demand estimates are assuming two full charter ships one in day and one in evening, each lasting approx 4 hours.
  - 4 Number of high demand visitors has decreased from present due to no expected evening meetings.
  5. ITE Parking Generation 3rd Ed. Land Use 411 City Park with administration building.

## Future High Demand Weekend

Land Use Attendance Description Vehicles per person	MOHAI 629.0 visitors <sup>4</sup> 0.33	MOHAI 400.0 Meetings 0.33	MOHAI 35.0 employees 0.80	MOHAI 7.0 volunteers 0.80	Virginia V 300 visitors <sup>3</sup> 0.50	Virigina V 25 employees <sup>1</sup> 0.80	CWB 1340 visitors <sup>2</sup> 0.5	CWB 100 volunteers 0.80	NW Seaport 120 visitors 0.50	NW Seaport 20 volunteers 0.90	Park <sup>5</sup> vehicles per acre: 5.10	UIT 30 employees 0.80	UIT 15 volunteers 0.80	UIT 500 Vistiors 0.33	Parking Demand
Average Stay	1.5	4	9	2	4.5	10	4.5	4	5	5.6	6	9	2	1.5	
	%daily visitors distributed parking used	%daily visitors distributed parking used	% employee parking used	% volunteers parking used	% volunteers parking used	% employee parking used	%daily visitors distributed parking used	% volunteers parking used	% volunteers parking used	% volunteers parking used	% parking used	% employee parking used	% volunteers parking used	% parking used	
12:00-4:00AM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
5:00AM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
6:00 AM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
7:00 AM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0
8:00 AM	0% 0	0% 0	11% 28	11% 1	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	20% 6	11% 24	11% 3	0% 0	62
9:00 AM	0% 0	0% 0	11% 28	11% 1	6% 38	11% 22	0% 0	0% 0	0% 0	0% 0	40% 12	11% 24	11% 3	0% 0	128
10:00 AM	8% 26	0% 0	11% 28	11% 1	11% 75	11% 22	6% 172	3% 11	0% 0	10% 10	60% 18	11% 24	11% 3	8% 21	411
11:00 AM	8% 26	0% 0	11% 28	11% 1	11% 75	11% 22	7% 208	3% 11	0% 0	10% 10	80% 24	11% 24	11% 3	8% 21	453
12:00 PM	14% 45	0% 0	11% 28	11% 1	11% 75	11% 22	7% 208	3% 11	0% 0	10% 10	100% 31	11% 24	11% 3	14% 36	494
1:00 PM	18% 57	0% 0	11% 28	11% 1	11% 75	11% 22	7% 208	3% 11	0% 0	10% 10	100% 31	11% 24	11% 3	18% 45	514
2:00 PM	18% 57	0% 0	11% 28	11% 1	6% 38	11% 22	9% 277	3% 11	0% 0	10% 10	100% 31	11% 24	11% 3	18% 45	546
3:00 PM	18% 57	0% 0	11% 28	11% 1	6% 38	11% 22	12% 347	17% 53	0% 0	10% 10	100% 31	11% 24	11% 3	18% 45	658
4:00 PM	14% 45	25% 133	11% 28	11% 1	11% 75	11% 22	14% 416	17% 53	0% 0	10% 10	100% 31	11% 24	11% 3	14% 36	878
5:00 PM	0% 0	25% 133	0% 0	0% 0	11% 75	11% 22	14% 416	17% 53	0% 0	10% 10	80% 24	0% 0	0% 0	0% 0	734
6:00 PM	0% 0	25% 133	0% 0	0% 0	11% 75	0% 0	14% 416	17% 53	0% 0	10% 10	60% 18	0% 0	0% 0	0% 0	706
7:00 PM	0% 0	25% 133	0% 0	0% 0	11% 75	0% 0	12% 347	17% 53	20% 60	10% 10	40% 12	0% 0	0% 0	0% 0	691
8:00 PM	0% 0	0% 0	0% 0	0% 0	6% 38	0% 0	0% 0	0% 0	20% 60	0% 0	20% 6	0% 0	0% 0	0% 0	104
9:00 PM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	20% 60	0% 0	0% 0	0% 0	0% 0	0% 0	60
10:00 PM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	20% 60	0% 0	0% 0	0% 0	0% 0	0% 0	60
11:00 PM	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	0% 0	20% 60	0% 0	0% 0	0% 0	0% 0	0% 0	60
															0
															0
Maximum	57		28	1	75	22	416	53	60	10	31	24	3	45	878

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