



Washington Park Parking Management Toolkit

August 2023



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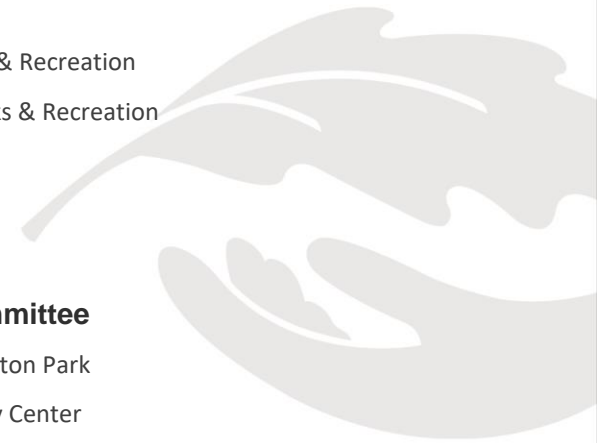
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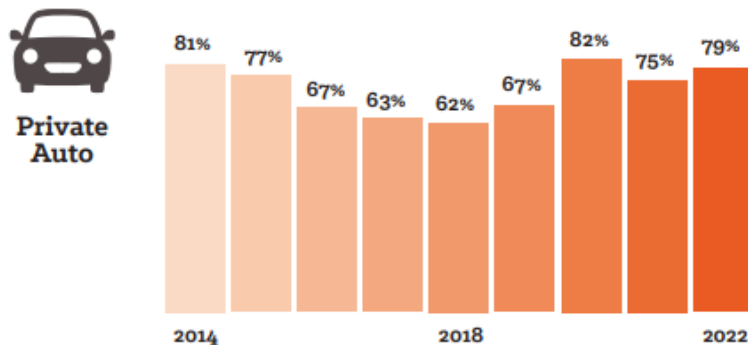


Introduction

Parking is a scarce resource in Washington Park. On peak days, it is common for more than 10,000 visitors to travel to the Park, and there is not enough capacity for everyone to drive and park. Nor is this desirable for parkgoers with the current infrastructure: excessive vehicle traffic creates conflicts with pedestrians, bicyclists, and other users of the Park’s roadways, which can degrade the overall experience for everyone.

To address this scarcity, reduce congestion, and incentivize the use of other access options, Washington Park implemented paid parking in early 2014 after multiple years of outreach to stakeholders, visitors, and neighbors. One hundred percent of parking proceeds are reinvested within Washington Park, and a vital component of the paid parking program was the creation of Explore Washington Park (EWP), whose mission is to improve Park access and the overall visitor experience within a system that offers the most efficient mix of access options for all users.

In the years following the implementation of the paid parking program and establishment of EWP, the percentage of visitors traveling to the Park by private auto dropped from 81% in 2014 to a low of 62% in 2018, all while maintaining annual growth in the total number of visitors coming to the Park.



Source: EWP’s 2022 Annual Transportation Report

Starting in 2020, with the onset of the pandemic, the number of visitors to the Park dropped significantly, temporarily relieving some of the parking constraints and leading to a higher percentage of auto trips. By 2022, peak season visitors had returned to 67% of pre-pandemic levels, with auto trips accounting for nearly 80% of trips to the park—only slightly less than 2014 levels. **Transit usage, which had accounted for up to 22% of trips to the Park pre-pandemic, has fallen to less than 10%.**

Moving forward, it is clear that if visitor levels are to return to pre-pandemic levels, transit, shuttles, and other modes will need to serve a much higher percentage of trips compared to 2022 levels. The 1,400 parking stalls and limited roadway network cannot feasibly serve 2019 visitor levels, with 80% arriving by private vehicle without excessive traffic congestion, frustrating delays for visitors searching for parking, and safety concerns with pedestrians and vehicles sharing the roadways. Strategies such as timed ticketing and shuttle service to remote parking have helped relieve some issues related to cars circulating searching for parking on peak days. Still, additional management strategies will be needed moving forward.

This Toolkit lays out a framework of parking management strategies with a simple goal: **Use pricing, management tools, and incentives to provide visitors with a wide variety of high-quality and easy access options so that they can choose the mode of travel that works best for their trip.**

Even with a highly successful transportation demand management (TDM) program in place, *most* visitors will likely continue to drive and park. Families with young children, those with mobility limitations, households with limited access to efficient transit, or anyone who would prefer to drive should have that option without facing uncertainty about whether they can find a place to park when they arrive. Parking should be priced to ensure spaces are available for those who would prefer to drive, and the revenue could be reinvested to make other access options easy and affordable for those willing to walk, bike, scoot, take transit, or use rideshare. Even if only a small percentage of visitors decide to use another mode of travel on any given day, this shift can



greatly improve the access experience for everyone due to reduced vehicle circulation and greater parking availability.

Should we just build more parking?

Adding new parking capacity is certainly an option that could be considered. Parking structures are huge investments that require years of outreach, planning, and construction. The parking management strategies in this Toolkit are focused on near and mid-term solutions that are designed to have immediate effects upon implementation. Managing the existing supply using parking management best practices should always be considered before investing millions of dollars in new parking capacity. This is particularly true in a setting like Washington Park, whose first principle is to be caretakers of the natural world.

In 2014, it was determined that the price of parking (\$0 at the time) was too low relative to demand and the cost of transit and other access options. Paid parking was introduced to address this supply and demand imbalance and create a mechanism to fund improvements and incentives for using other access modes. At present, with many parking areas at or near capacity on peak days, the price for parking may still need to be higher. For context, the cost to park all day in Washington Park in 2022 (\$8.00) was lower than the cost of two adult round-trip transit tickets (\$10.00).

Parking pricing is one of many tools discussed in this Toolkit. Other near-term strategies, such as real-time parking availability information, regular shuttle service to remote lots, and other various improvements and incentives to use other modes, are discussed. But parking rate adjustments are one of the most effective tools for managing demand, and parking rates are, therefore, a key component of this Toolkit.

Performance-Based Pricing

Performance-based pricing refers to the process of modifying parking pricing based on an established set of metrics. Typical best practice calls for modifying rates to ensure parking is, at most, 85% occupied at peak times. When parking occupancies exceed 85%, it becomes challenging for drivers to find parking, leading to congestion, persistent circulation, and general frustration with the parking experience.

Importantly, performance-based pricing is not just about rate increases. In some cases, it may be useful to reduce rates to help encourage visitors to park in lower-demand areas that may be further from their destination or to visit during calmer hours of the day. Washington Park already has a form of performance-based pricing in place: on days when the overflow shuttle is running, parking in the remote lot near the South End of the Park is free, compared to \$2.00 per hour within the Park. Some more price-sensitive visitors, therefore, have the option to park in the free lot and take the shuttle, freeing up parking for those willing to pay to park closer to their destination.

Performance-based pricing programs are typically implemented using incremental rate changes. The reason is simple: make small adjustments and measure results to see if peak parking demands have shifted. If so, no additional rate changes may be needed. Additional rate adjustments are likely warranted if the rate change had little effect. By using data-driven and incremental adjustments, the goal is to influence the behavior of visitors who are willing to (or can easily) change their behavior and choose another access option. Those who continue to drive and park may or may not notice slightly higher rates but will have a better overall parking experience with less congestion and more availability. In Washington Park, where 100% of parking proceeds are reinvested in the Park, revenues can be used to improve transit, bike, and walk access, user communications, or even incentivize the use of other modes (such as free or reduced cost transit) for those willing to leave their car at home.



Toolkit Strategies

Outlined below are new strategy and program recommendations structured to address improving parking management in Washington Park, to maximize existing parking resources, and reduce barriers to multimodal transportation options for visitors, guests, and employees of the Park.

Strategies are separated into six operational elements of parking management (A – F). The recommended strategies are numerous, complex, and mutually supportive.

A. DATA COLLECTION

A1 – Parking Transaction Data Analysis

Portland Parks & Recreation maintains a database of every parking payment transaction in Washington Park, which provides a detailed and robust dataset of vehicle trips, parking location by lot, and revenue per trip. This data can be the foundation for tracking vehicle trips and revenue over time.

In September 2022, Washington Park transitioned from pay-by-stall to pay-by-plate. This eliminated the need to maintain parking stall numbering throughout the Park. However, this change does not allow Portland Parks & Recreation to determine which individual stalls are occupied at any given time. Therefore, the parking transaction database is less reliable for measuring duration of stay and occupancy by lot, as the actual time of departure of each vehicle is generally unknown, which can lead to significant double-counting of vehicles¹.

¹ The pay-by-stall database had some inherent uncertainty in duration of stay as well, as the actual time of departure was unknown. However, in processing the data, it was possible to measure occupancy by lot more accurately by correcting for overlapping paid parking sessions (i.e., 2 or more vehicles paying for the same

Given the detailed information available and the known limitations of the data, the following metrics should be tracked using the paid parking database:

Performance Measures

1. Daily vehicle trips by lot (March – September + Zoolights)
2. Daily revenue per vehicle trip by lot (March – September + Zoolights)

The number of paid parking transactions within the database is very large (for example, in August 2022, there were over 78,000 transactions, including extensions). This amount of data can be time-consuming to process, depending on the metrics needed. These proposed metrics can be measured easily in a spreadsheet with minimal additional effort.

Intended Outcomes

By establishing a clear, objective, and easily replicable analysis process, Washington Park can use the existing database to track vehicle trips and revenue over time. While the paid parking transaction database can estimate other metrics, many indicators are better obtained using other methods.

Cost

Minimal, staff time only.

A2 – Annual Utilization Study

Paid parking transactions can document trends over time but do not fully capture actual parking characteristics in the same way as a turnover study. Vehicles that do not pay for parking (including users of the overflow lot, violators, and permit holders) are not included in the payment database,

parking stall simultaneously). As an example, on a Saturday in August in 2022, approximately 18% of all occupied parking stalls at the peak hour were “double-paid.” These double-paid stalls can be accounted for in pay-by-stall system, but not in a pay-by-plate system.



along with other observational information such as vehicles occupying multiple stalls, temporarily blocked stalls, etc. Conducting an on-the-ground study that measures occupancy by hour, duration of stay, and violation rate will provide a more reliable tool for measuring peak season demand on an annual basis. When combined with trips by other modes, visitor data, vehicle trips, and revenue data from the paid parking database, this data will provide a suite of information that can then be used to drive parking management decisions, such as rate adjustments and other modifications.

Performance Measures

1. Hourly Occupancy by Lot
2. Duration of Stay by Lot
3. Valid Permits by Lot by Hour

The selection of the days of the utilization studies will be key due to the high variability of parking demand throughout the year. Measuring demand on holiday weekends is likely optional, as the paid parking transaction database provides information about the number of vehicle trips on the highest peak days. Instead, the goal should be to capture typical peak-season operations. The following days are recommended:

Recommended Study Days

1. Summer Thursday
2. Summer Saturday

Recommended Selection Criteria

- a. Non-holiday
- b. Portland Public Schools on summer break
- c. Forecasted high temperatures between 70 and 90 degrees
- d. No rain in the forecast

Intended Outcomes

Taking a data-driven approach to parking management requires agreement on the source and methodology for the data that will drive the decisions. Committing to an annual data collection effort on a specific set of days will help to ensure that the data used to make decisions is clear, consistent, and well-defined.

Cost

\$15,000 - \$25,000 per year.

A3 – Annual Report

Each year, all performance measures used should be compiled along with other relevant data from other partners (mode split, attendance data, etc.). This standalone annual report will be used to track progress, document changes, and assess the effectiveness of specific strategies.

Explore Washington Park currently releases an Annual Transportation Report that provides detailed information about visitors, modes of travel, destinations, travel trends, and visitor perceptions. Rather than add parking data to this report, select mode split and visitor numbers can be pulled into the Annual Parking Report.

Appendix A defines the performance measures that can be pulled directly from the transaction database (**Strategy A1**) as well as the performance measures that will need to be collected in the field (**Strategy A2**). Additional performance measures can be pulled from Explore Washington Park's Annual Transportation Report or provided each year by the venues.

Intended Outcomes

Portland Parks & Recreation maintains a detailed database of parking payment data, and Explore Washington Park serves as the lead for travel behavior and perceptions. Committing to a standardized annual parking report will help ensure that parking metrics are tracked clearly and consistently over time, enabling a data-driven management approach.



Cost

Minimal, staff time only.

B. USER INFORMATION

B1 – Real-Time Parking Availability

When parking is constrained, conflicts between cars, pedestrians, and bicycles arise due to drivers circulating in search of parking. In addition, visitor satisfaction decreases as drivers become more frustrated. Providing real-time parking availability information to drivers through dynamic signage and online communication in advance of their trip can help reduce these conflicts and frustrations by encouraging drivers to use available parking areas.

When real-time information is provided in a clear and understandable manner, some drivers may choose to park in an area they would not have previously considered and avoid driving into the most congested areas of the park. This not only helps to reduce congestion, but also helps to make better use of underutilized parking areas.

Options to Consider

There are a wide variety of technology options to collect real-time parking demand information. The following two options are recommended as the most reliable and cost-effective options currently available.

Recommended Real-Time Technology

1. **Speed hump sensors at lot entrance/exit points:** These surface mounted sensors are embedded in speed humps and can be flexibly applied where needed to capture vehicles entering and exiting an area. On-street areas can also be counted, provided sensors are placed at every entrance and exit point from an area. The data can be displayed both on dynamic signs and in online communications.
2. **Mounted AI-enabled Cameras:** Cameras mounted on poles or buildings can record parked vehicles and, through time-lapse videos, monitor the duration of stay of individual vehicles. This type of technology can be

more expensive than speed hump sensors to use in very large areas, but can be applied where it is difficult to capture accurately all entering and existing vehicles.

Other available options are likely to either be cost-prohibitive or difficult to maintain:

- License-Plate Recognition Cameras
 - **Benefits:** Provides duration of stay by vehicle and can be used to monitor permit holders.
 - **Drawbacks:** Expensive and challenging to install, requiring channelization of vehicles to ensure accurate reads.
- Stall Sensors
 - **Benefits:** Provides real-time availability for individual stalls, tracks the duration of stay by stall, and can be fairly cost-effective per stall.
 - **Drawbacks:** Difficult to maintain in the mid-to-long term; may dislodge from snow plows, battery life, etc.

Intended Outcomes

Increased usage of underutilized parking areas, with reduced vehicle circulation in high-demand areas.

Cost

- One-time: \$12,000 - \$25,000 per lot/street (speed humps)
\$40 - \$80 per stall (cameras)
- Ongoing: \$2,000 - \$6,000 per lot/street (speed humps)
\$35 - \$70 per stall (cameras)



B2 – Enhanced Signage

Collecting real-time parking availability data and displaying that information online and at the entrance to parking areas can have several benefits described above. Combining this with enhanced, real-time digital signage throughout the Park can further achieve these desired outcomes.

For example, signs at key intersections can inform drivers which direction to turn to find available parking. Thoughtfully designed signage could also include color-coded parking rate information, which could be helpful if implementing Zonal Rates (Strategy E2) in the Park.

Intended Outcomes

Increased usage of underutilized parking areas, with reduced vehicle circulation in high-demand areas.

Cost

- One-time: \$6,000 - \$10,000 per sign
- Ongoing: \$2,000 - \$5,000 per sign

B3 – Fixed Route Overflow Shuttle with Tracking

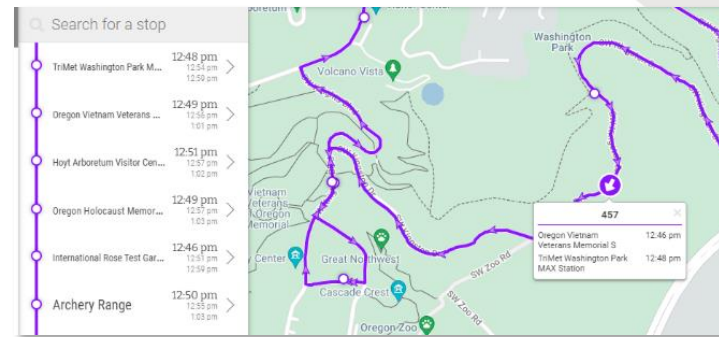
Currently, shuttle service to the overflow lot operates “as needed.” This allows the service to only run when the South Lots fill, potentially reducing the number of times the shuttle operates with very limited ridership.

Unfortunately, this approach creates uncertainty for those planning to visit Washington Park. There’s little way of knowing if the overflow shuttle is operating ahead of time, and those directed to the overflow area generally do so by necessity rather than choice.

If Washington Park instead commits to operating the shuttle for a certain number of hours during the peak season, this regular schedule can be promoted in advance, allowing those to choose this as an option before they leave home. If parking in the overflow lot remains free while the

parking rates increase in other areas of the Park, some users may decide to make this their preferred option. Those who choose to park in the overflow lot to save money will generally be more satisfied with their trip than someone forced to park there, and this self-selection process can help improve the overall perception of accessing the Park. This could also be a benefit for Park employees and volunteers if the schedule accommodates their work hours.

This option can be further enhanced by showing the real-time location of the shuttle on a map that can be viewed easily on a mobile device. This approach is currently used on the free Washington Park circulator shuttle:



Intended Outcomes

Increased satisfaction with those who use the overflow shuttles and reduced circulation within the South Lots for those looking for parking on peak days.

Provide a low/no-cost parking option for visitors that are cost-sensitive.

Cost

Approximately \$2,750 per day of scheduled service (assuming third party operator). Estimated annual cost of \$137,500 assuming operations three days per week (Friday through Sunday) from Memorial Day weekend through Labor Day (50 days of service).



C. PARKING PERMITS

C1 – Seasonal Lot Restrictions

Many days of the year, there is adequate parking availability in many of the Washington Park lots. However, during the peak season, particularly on weekends, employees who park all day in high demand lots often displace multiple visitor vehicle trips to other areas. For example, in the Garden Lots, the average vehicle stays for around 1 hour and 30 to 1 hour and 40 minutes on busy summer Saturdays. This indicates that every stall has the potential to serve between 4.8 and 5.3 vehicles during an 8-hour day. Every employee vehicle means these visitor trips must park elsewhere.

Implementing policies to ensure employees park in lower demand lots on the busiest days can help to increase the effective capacity of the highest demand lots and reduce circulation and visitor frustration. This could come in the form of permit restrictions (tied to specific days of the year or other metrics, such as seasonal pricing, if applicable) or limitations on where discounts may be used (see **Strategy C2**).

Many employees have noted concerns about parking further away due to security concerns and car break-ins. **Strategy D1** was developed as one potential tool to begin to address this concern. This strategy is best deployed with careful consideration about where specifically employees will park, the days and hours in which they would be expected to park further from their destination, and what transportation alternatives they would have if walking is not feasible.

Intended Outcomes

Increased visitor vehicles served per day within each lot with restrictions put in place.

² A daily permit program requires a very effective enforcement program. Employees who learn that there is little threat of enforcement would likely avoid paying altogether on most days.

Cost

Minimal, staff time only.

C2 – Transition to Daily Employee Permits

Monthly parking permits that are paid in advance have served as a default option for employees for many years. However, this approach has a significant downside when parking is limited: employees are incentivized to drive every day since parking has been prepaid, and taking transit would require an additional out-of-pocket cost.

There are multiple options to address this counterproductive incentive, including transit discounts, flexible transportation wallet programs that can be used to reimburse employees for travel (even “free” modes like biking and walking can come with a reimbursement), or simply transitioning to daily parking permits so that employees can make a decision about their travel each day.

If switching to daily permits in Washington Park, employees could be given a discount code to pay for their parking session, allowing them to pay a lower rate². It is recommended that taking transit is always free to employees or less expensive than parking. This helps to provide an ongoing incentive to consider other modes of travel. Additionally, daily employee rates should be reevaluated with changes to daily and hourly parking rates.

Recommended starting rates³:

- 1. Peak: \$6.00 / Day
- 2. Off-Peak: \$3.00 / Day

³ Currently, peak season employee permits cost \$125 per month, or approximately \$6.00 per day assuming 21 days of use per month. In the off-peak season, employee permits cost \$68 per month, or approximately \$3.00 per workday.



A Note Regarding Implementation

The venues have expressed a variety of concerns and challenges with this approach, including the lack of reliable alternative transportation options during the morning and evening hours, the distance some employees must travel from home, and general staff retention and messaging concerns. For these reasons, it should be a general priority to ensure no staff are “penalized” or must pay more than current conditions, even if they drive daily. Instead, added savings or benefits for those who choose to take advantage of other options will help ensure a smooth transition.

Intended Outcomes

Fewer employees parking in high demand lots on high-demand days.

Cost

Revenue neutral. The strategy is not intended to increase revenue from employers or employees. If the strategy results in reduced permit revenue from employees or venues, some additional investment may be needed to fund transit discounts or incentives for other modes of travel.

C3 – Volunteer Parking Restrictions and Incentives

Volunteers are an important facet of many operations in Washington Park. The Park partners need to have a very robust support system in place to allow volunteers to make their shifts without barriers. Currently volunteers receive an ePurse card that allows up to all day parking anywhere in Washington Park⁴. There are no restrictions on where volunteers may park, and in many cases, volunteer vehicles parked all day can lead to multiple visitor trips having to park further from their destination (or in the overflow lot).

On busy days when lots are known to fill, volunteers should be directed to lower demand lots (similar to **Strategy C1** for employees). This will help to

⁴ For context, the pay-to-park program foregoes approximately \$50,000 in parking revenue each year by providing volunteers with free parking.

lessen the impact of all-day volunteer parking. Additionally, volunteers should be given the option to take an alternative mode of transportation (such as a free transit pass for the day).

Over time, consideration should be given to additional incentives to encourage volunteers to consider other options for accessing the Park. If free parking (with lot restrictions) remains an option moving forward, incentives such as a small gift card could be considered for any volunteer who opts not to drive and park.

Intended Outcomes

Reduced volunteer vehicle demand in more frequently trafficked parking locations and increased transit ridership by volunteers.

Cost

Minimal cost for seasonal lot restrictions. Some investment needed to create incentives for volunteers to consider alternative modes.

D. SECURITY AND ENFORCEMENT

D1 – Security Cameras

Over 1,400 parking stalls in Washington Park are spread over a wide area, making security patrol difficult. Employees have noted that car break-ins have increased in recent years to the point that many employees are hesitant to leave their vehicles in some areas of the Park, particularly those with less foot traffic.

Regular security patrol could be enhanced by deploying security cameras in areas with less overall vehicle demand. As an example, if **Strategy C1** attempts to encourage employees to park in lower demand areas of the Park, Washington Park could invest in security cameras in these areas. The cameras can serve as a deterrent to potential criminals, provide a useful



tool for security patrols, and provide additional peace of mind to employees being asked to park in these areas.

An optional add-on to this strategy would be to provide access to the security camera feed in real-time online. This would allow employees to monitor their vehicles and provide information about parking availability in these areas.

Intended Outcomes

Fewer vehicle break-ins in areas with cameras, greater acceptance among employees to park in lower demand areas.

Cost

- One-time:
 - Battery Power Only / Existing Pole: \$500 - \$1,000 per location
 - Wired / Power Supply Installed: \$2,000 - \$6,000 per location
- Ongoing: \$4,000 - \$8,000 per year (software/monitoring)

D2 – Data-Driven Enforcement

The goal of the enforcement program is generally to ensure compliance with regulations. Fines are necessary to serve as a deterrent to abuse. Still, some degree of leniency is reasonable in a setting where the vast majority of users are occasional visitors who may not be familiar with the rules or process of paying for parking.

Tracking the “violation rate,” defined as the number of vehicles observed in violation as a percentage of the overall number of unique vehicles, can be a useful metric to track the effectiveness of the enforcement program. The industry standard typically seeks to achieve a violation rate of 5-9%, meaning that more than 90% of vehicles are paid (or permitted) and in compliance.

Measuring the violation rate requires on-the-ground observations and cannot be measured using the payment database (vehicles that never pay or overstay their session cannot be determined from the payment data). The violation rate should therefore be measured as part of the Annual Utilization Study (**Strategy A2**). This will require comparing each license plate observed in the field to the payment and permit database to assess violations. High violation rates, either Park-wide or in specific areas, may help to identify where more visible enforcement may be needed.

Implementing **Strategy C2** (Transition to Daily Employee Permits) will require close coordination with the enforcement program and possibly new fine schedules. Employees are very likely to avoid paying for parking if it is clear there is very little threat of a ticket, and strategies such as escalating fines for repeat violators may be needed as a check against employee abuse with changes to the current permit programs.

Performance Measure

1. Violation Rate (Overall)
2. Violation Rate (Employees)

Intended Outcomes

A culture of compliance within the Park for both visitors and employees, with violation rates of 9% or less.

Cost

Should be included as a work task element of the Annual Utilization Study (**Strategy A2**).

E. PRICING

E1 – Increased Daily Rates with Reduced Evening Rates

The current daily rate ensures that visitors never pay more than \$8.00 per day per vehicle. On busy spring and summer days, more than 30% of all



visitors parking in Lots A-C will opt for the daily rate⁵. The current daily rate generally signals that parking is likely a less expensive option than taking transit (2 roundtrip transit tickets would typically cost \$10.00).

Increasing the daily rate to \$12.00 (free after 6 paid hours) would help to communicate that for longer stays, transit may be a more affordable option for some park visitors (depending on age and number of people traveling together).

In many parts of the Park, parking demands are much lower in the late afternoon and evening outside of the holiday season. To reduce the potential extra cost paid by evening parkers during low demand periods, the hourly rate could be reduced by 50% starting at 4:00 PM. This would help to ensure evening parkers do not pay more while also incentivizing the spreading of peak demands—visitors who might have arrived at 1:00 PM might choose to arrive at 3:00 or 4:00 PM to make use of the reduced rate, taking advantage of available parking during these hours.

Below is an example of how the cost of parking might change under this proposal compared to current conditions:

Session	Current Cost	Modified Cost	Change
10 AM – 3 PM	\$8.00	\$10.00	+\$2.00
10 AM – 4 PM	\$8.00	\$12.00	+\$4.00
2 PM – 8 PM*	\$8.00	\$8.00	No Change
5 PM – 8 PM*	\$6.00	\$3.00	-\$3.00

*Paid parking ends at 8 PM. There is no additional fee for longer.

The current data does not allow for a detailed analysis of the number of visitors who would pay more under this scenario. However, with the

⁵ Using the payment data alone, the actual duration of stay of these trips is unknown. It is likely some stay for 5+ hours, while others stay for less than 4 hours and overestimated the time needed.

reduced evening rate, no visitors who arrive after 2 PM would pay more under this scenario. For all day, events transit should be heavily incentivized. Discounts could be utilized if specific groups are disproportionately impacted, though this should be infrequently used.

Intended Outcomes

Increased carpool rates (occupants per vehicle), increased transit usage (percentage of trips), no reduction in overall number of visitors.

Cost

Cannot be assessed based on current data as the duration of stay for vehicles staying longer than 4 hours is unknown. During the 2022 peak season, approximately 18% of overall revenue was collected after 4:00 PM. This scenario may reduce revenues, have no impact, or increase revenues slightly, depending on the balance of the offsetting factors (higher rates for all-day parking, lower rates for evening parking).

E2 – Zonal Rates

In 2022, based on an analysis of payment transaction data, it was clear that some parking areas are very congested, particularly during summer weekends and holidays, while other areas have parking availability during these same times. The Washington Park Free Shuttle was implemented to allow visitors to park once and travel to various destinations throughout the Park. However, there is currently no financial incentive for visitors to park in lower demand areas and use the shuttle.

Implementing zonal rates is one strategy that may be considered to help redistribute parking demand from the areas with the highest demand to areas with parking availability. This strategy will be more effective if the



rates are well communicated in advance (website) as well as in-park via enhanced wayfinding signage (**Strategy B2**).

When to Consider Zonal Rates

1. Parking area exceeds 85% occupancy 30+ days/year (Spring/Summer)
2. Other parking areas do not exceed 85% occupancy 50%+ of these days

In 2022, the South Lots (Lots A, B, and C), the Hoyt Lot, and the Garden Lots all exceeded 85% occupancy for significantly more than 30 days during the spring and summer peak months. Other areas of the Park, including Sherwood Blvd, Washington Way, and Lewis and Clark Circle, rarely exceed 85% occupancy. This indicates that zonal rates intended to redistribute parking from high demand to lower demand areas may help reduce vehicle circulation in the highest demand areas.

Rate Adjustment Process

1. Increase rates in peak zones by \$0.40 per hour up to once per year
2. Pause if overall vehicle trips have decreased since last adjustment

Intended Outcomes

Increased usage of lower demand parking areas and the remote lot (as a percentage of total vehicle trips), increased carpool rates (occupants per vehicle), increased transit usage (percentage of trips), and no reduction in the overall number of visitors.

Cost

Net positive revenue.

E3 – Seasonal Rates

During Spring Break and summer weekends and holidays, parking demand routinely exceeds capacity in some areas of the Park, requiring the use of the overflow remote lot and resulting in excessive vehicle circulation in the most congested areas. On the busiest days, parking demand may begin to exceed the effective capacity of parking across the entire Park. Without additional parking supply, higher rates may be needed on these peak days to incentivize the use of other modes of travel.

Higher rates on peak days, clearly communicated in advance to Park visitors, may help to encourage visitors to plan to travel to the Park using another mode, such as transit. For example, some visitors may choose to use the Sunset Transit Center and ride the MAX one stop if this is a less expensive option than parking.

When to Consider Seasonal Rates

1. Demand exceeds 85% occupancy 30+ days/year (Spring/Summer)
2. Limited parking availability in other areas of the Park

In 2022, the peak occupancy across the *entire* Park rarely exceeded 85%; the average Park-wide peak demand for the 10 highest demand days was 84%⁶. Given this availability, strategies that attempt to redistribute parking may be a more effective first option. However, it will likely be beneficial to assess the south portion of the Park (including the overflow lot) separate from the north portion of the Park, given the long distance between these areas. Seasonal rates may be a key strategy for Lots A-C, for example, if the overflow lot begins to approach capacity, even if availability remains on Lewis and Clark Circle.

⁶ The overflow lot was not included in this analysis, or any of the 2022 Existing Conditions analysis.



Rate Adjustment Process

1. Increase peak season hourly/daily rates by +50% at most every 2 years
2. Pause if overall vehicle trips have decreased since the last adjustment

Intended Outcomes

Increased carpool rates (occupants per vehicle), increased transit usage (percentage of trips), and no reduction in overall number of visitors.

Cost

Net positive revenue.

E4 – Progressive Pricing

In some areas of the Park, such as the Garden Lots, it may be advantageous to discourage all-day parking. This area is one of the highest demand parking areas of the Park, and every spot occupied by a vehicle that parks all day could serve between 4.8 and 5.3 vehicles during an 8-hour day.

Traditional parking management strategies in Downtown environments suggest that time limits should be implemented in areas where it is desirable to encourage turnover and serve multiple vehicle trips per stall. In Washington Park, there is a desire to achieve turnover in some areas without implementing hard time limits and fines.

Progressive pricing is a strategy that uses higher rates for longer stays (such as a 50% higher hourly rate on stays greater than 2 hours). Those looking for all-day parking are encouraged to look elsewhere, but those who stay for a little beyond 2 hours are only subjected to a slightly higher rate.

Example Session	Current Fee	Modified Fee	Change
10 AM – 12 PM	\$4.00	\$4.00	No Change
10 AM – 1 PM	\$6.00	\$7.00	+\$1.00
10 AM – 2 PM	\$8.00	\$10.00	+\$2.00

When to Consider Progressive Pricing

1. More than 40% of trips stay longer than 2 hours in high turnover lots

Intended Outcomes

Increased number of vehicle trips per stall in lots with progressive pricing.

Cost

Net positive revenue.

F. TRANSPORTATION DEMAND MANAGEMENT

F1 – Sunset Transit Center Partnership

A key objective of all the parking pricing strategies is to serve a growing number of visitors with a fixed parking supply, requiring increased usage of alternative modes. While some visitors may be willing to consider transit door-to-door if the price and travel time are comparable to driving, taking MAX one stop from the park-and-ride at the Sunset Transit Center would likely be a more broadly accepted option for visitors who prefer to drive. In fact, if the MAX ride is discounted or free, if the option is promoted as an option for Washington Park visitors, and steps are taken to ensure riders feel safe at all times from their car until arriving in Washington Park, making use of the park-and-ride could be preferred to the overflow lot for many users. This would virtually expand the parking capacity of the Park when demand is highest, without the high cost of added infrastructure.

Key to this approach is safety and comfort, particularly for those who rarely, if ever, take transit. This could include marketing aimed to change perspectives, staff on site to assist, and events. There are many potential options for providing users with discounted or free transit passes but creating a one-stop “fare-free” zone between Sunset Transit Center and Washington Park is likely to be the option that eliminates the most barriers for visitors who typically drive. A partnership with TriMet that allows for fare-free ridership on summer weekends when the park-and-ride has plenty of available parking, along with promotional signage within the



Sunset Transit Center, would help make it feel like an extension of the parking within Washington Park. To help launch the program, Park ambassadors could set up a booth to promote the option or even ride with Park-goers to add an extra layer of safety and security.

Intended Outcomes

Increased percentage of trips made by transit on peak days.

Cost

To be negotiated. For context, each vehicle parking at Sunset could cost \$5.60 to \$22.40 per day (depending on the number of adult passengers), assuming all passengers must pay the full daily transit rate for the round trip. Given the one-stop trip, parking availability on weekends, and available transit capacity, a cost-share agreement with a much lower cost per vehicle is likely warranted.

F2 – Free Transit Passes

While a partnership with TriMet to promote the Sunset Transit Center as a parking option for visitors traveling to Washington Park would likely appeal to visitors who prefer to drive, a broader program that includes a free transit pass with all pre-purchased venue tickets would be the most flexible and appealing option to serve those willing to leave their car at home; and might be seen as a more attractive option to Park patrons living on the region’s eastside.

The cost-sharing arrangement with TriMet would be the most challenging component of the program. One consideration (using the Timbers and Thorns program as a model) would be pre-paid venue tickets serving as proof of fare to and from Washington Park. Transit passes would have the most potential cost to the parking program, but this could be minimized by only creating discount transit codes for those who intend to use it by adding an option to check out when buying tickets.

Ultimately, free transit is likely to be the transportation demand management measure (TDM) with the greatest potential return on investment, flipping the current cost structure where transit is generally more expensive than driving and parking.

Intended Outcomes

Increased percentage of trips made by transit on all days.

Cost

The following daily transit rates are applicable starting in 2024:

- Adult (18-64): \$5.60 per day
- Youth (7-17)/Seniors (65+): \$2.80 / day
- Child (0-6): Free

One senior with 2 children, that opts to take transit instead of driving, might cost \$2.80 to cover their transit costs. A vehicle with 4 adults and 2 youths could cost \$28.00 to cover their transit costs. Given this wide range on a per-vehicle basis, covering costs based on actual usage may be necessary.

F3 – Free or Discounted Bikeshare Code

Biketown’s fleet of e-bikes that can be used for one-way trips around Portland can be a fun option for accessing the Park for those willing and able. The north end of the Park is within Biketown’s home zone, and includes two separate Biketown docking stations (although users can end their ride outside of a station for a small fee). The south side of the Park is likely to be a less feasible option given the steep grades (partially mitigated by an e-bike).

Overall, the grades and number of bikes and racks limit the overall potential for making this a significant percentage of trips to and from the Park. However, biking Washington Park on an e-bike could be promoted as an attraction and a draw in-and-of itself. Investing in a bike share discount



code as an option with a pre-purchased venue ticket has the potential to increase the percentage of trips to or from the Park via bike. Each code could be valid for a free 20-minute trip on the day of the ticket, for example. The one-way nature of Biketown makes it easy to take a bike for one part of a trip, and transit for another portion, and leave a vehicle at home.

Intended Outcomes

Increased percentage of trips made by bike.

Cost

A one-way trip on Biketown costs a \$1.00 flat fee (to unlock) plus \$0.30 per minute. A discount of up to \$7.00 per trip would cover a trip of 20 minutes or less.

Summary

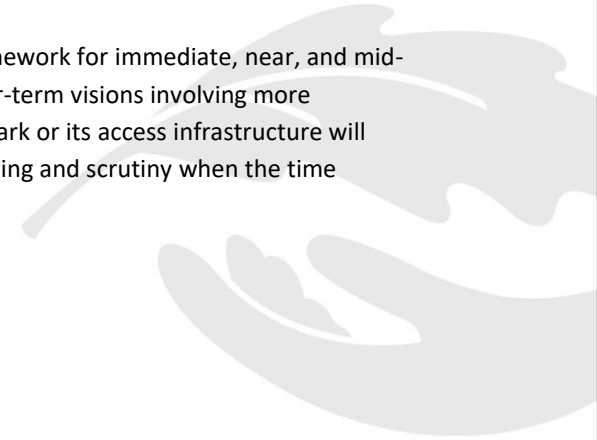
The purpose of this Toolkit is to provide the stewards of Washington Park with a framework of parking management strategies to use pricing, management tools, and incentives to offer visitors a variety of high-quality access options so they can choose the mode of travel that works best for their trip.

The parking management strategies and program recommendations presented here are intended to improve overall access to and in the Park by maximizing existing parking resources and reducing barriers to multimodal transportation options for visitors, guests, and employees of the Park. Strategies (particularly pricing) should be applied iteratively with measurable outcomes to evaluate their relative efficacy and be redeployed or suspended based on desired outcomes.

It is recommended that the Partners use this Toolkit and its recommendations as a living document for reviewing when and how to adjust rates and implement recommendations to achieve the desired mode split goals. Summer parking rates for the coming season should be

reviewed each November and Zoolight event rates reviewed each April for the upcoming winter.

The Toolkit establishes a suitable framework for immediate, near, and mid-term strategy implementation. Longer-term visions involving more significant structural changes to the Park or its access infrastructure will require additional management planning and scrutiny when the time comes.





Appendix

A. PERFORMANCE MEASURE DEFINITIONS AND METHODOLOGY

B. 2022 EXISTING CONDITIONS MEMO

C. SCENARIO MODELING MEMO

