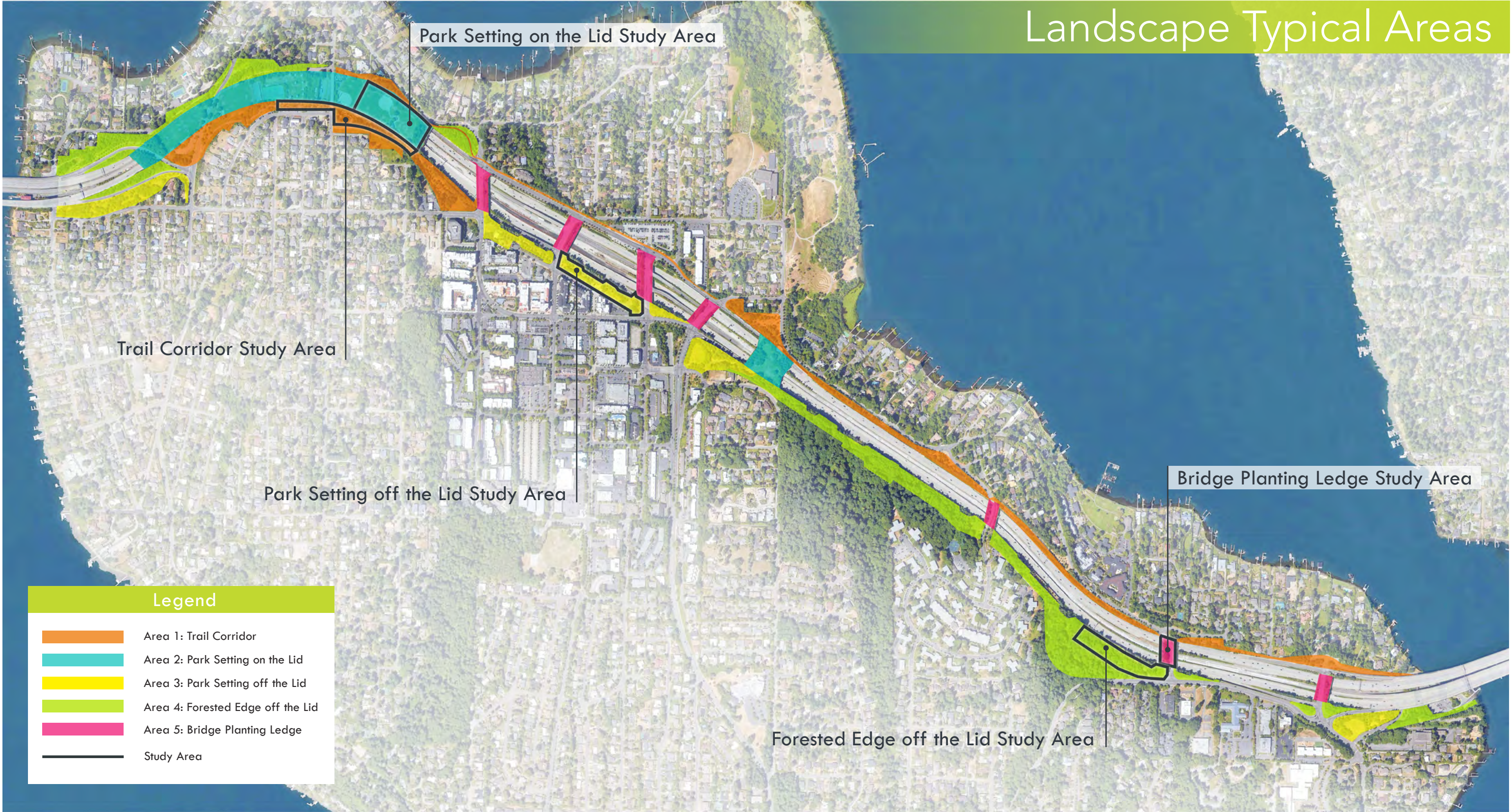


APPENDIX A

LANDSCAPE TYPICAL AREAS MAP

APPENDIX A

Landscape Typical Areas



APPENDIX B

LANDSCAPE ASSESSMENT

Landscape Assessment

The purpose of the Vegetation Assessment is to document the existing conditions of planting and irrigation within the park, analyze plant health, identify visibility and/or safety concerns due to vegetation, and document current landscape maintenance practices. The Vegetation Assessment is divided into five typologies (**Appendix A**). A representative sample of each of the five typical areas were reviewed in detail. It is assumed that recommendations for each typical area would be applicable to other similar areas across the entire Aubrey Davis Park corridor. In some cases, smaller study areas were identified within each typical area. The smaller study areas were evaluated in greater detail with the assessment results and recommendations described below.

The Vegetation Assessment includes recommendations for improving on-site soil and plant health, plant selection, increasing park safety and visibility, and to improve park maintenance, including water use reduction. Recommendations are based upon site observations, interviews with City of Mercer Island maintenance staff, soil test results, and review of WSDOT as-built documents.

See **Appendix A** for Landscape Typical Areas Map

See **Appendix C** Arborist Report (notes, observations and recommendations)

See **Appendix E** for Soil Sample Results and map with sample locations

General Overview

Below are some general observations for Aubrey Davis Park as a whole.

Soils

Soil samples were collected in eight locations within Aubrey Davis Park, corresponding to the six landscape typologies studied as part of the vegetation management plan. These typologies include a park setting on the lid, park setting off the lid, bridge planting edge, forested edge off the lid, and along the trail corridor (east end).

Enclosed in Appendix C are:

- An annotated aerial for locations of each sample;
- The individual soil test reports received.

Existing on-site soils display a very low organic content with an average 90% sand, 8% silt and 2% clay soil profile. This is not unexpected considering the original soil specification for the park was a two-way soil mix consisting of 70% to 80% sand and 20% to 30% ground bark. The ground bark organic matter in the original soil mix has decomposed over time leaving a very high sand content. The soil sample results reveal the remaining sand is poorly graded with up to 80% of sand particles in the medium to fine range. When sand soils do not have a mixture of particle sizes, the soil is more likely to compact without the particle voids needed to hold oxygen and water within the soil. The low organic content and poorly graded sandy soils are causing poor plant growth, overall plant stress, and plant with increased maintenance needed to keep plants in a healthy growing condition. The increased maintenance is directly tied to low fertility and microbial levels, low oxygen and water holding capacity, increased soil compaction, and low organic content that exists within the on-site soils.



Sandy soils within lawn areas. Healthy soil profile includes clods and veins which is not visible in the existing soil.

Notable observations of soil test results include:

- 1) **Soil Classification:** Existing soils are very sandy with extremely low organic content and low nutrient levels. While low organic content sandy soils may perform well in recreational lawn conditions, higher organic content and nutrient levels are best for tree, shrub and groundcover planting areas. Sandy soils increase maintenance costs by requiring ongoing water and chemical fertilizer applications for healthy plant growth.
- 2) **Organic Matter:** The optimal organic matter content for soils in lawn areas is 5% to 8% by dry weight and 10% to 15% in tree, shrub, and groundcover planting areas. The soil sample tests results reveal that organic content is very low at a 1.5% average. Addition of compost (33% by volume) and organic mulch topdressing will help increase organic content levels within the existing soils and increase water and nutrient holding capability.
- 3) **pH:** The optimal pH range for most plants is between 5.5 and 7.5. The tested pH at an average of 6.0 is acceptable for ornamental plant growth likely due to ongoing fertilizer use.
- 4) **Nitrogen:** Nitrogen levels are low in all but one of the soil test locations. The grass lawn soil test location displayed a higher nitrogen level likely due to ongoing lawn fertilization. Nitrogen is soluble in water and leaches out of sandy soil quickly when it rains or is irrigated. Addition of compost (33% by volume) to existing soils will increase mineralized nitrogen, active carbon and microorganisms available for plant growth, thereby significantly reducing the need for chemical fertilization.

Character and Health

Generally, the existing plant palette within the park consists of hardy, drought tolerant shrubs and groundcovers suitable for the specified soil mix (sandy, low organic content) that was used at the time of installation. However, some species have performed better than others over time. Many shrubs and groundcovers display an overgrown character adjacent to pedestrian pathways and trail with shrubs reaching their maximum mature sizes. Bare ground is visible in areas where plants have died back and around mature shrubs that have likely shaded out groundcovers. English Ivy is the predominant groundcover found throughout the park. Its aggressive nature has taken over a large percentage of the planting areas reducing species diversity. Dead trees and shrubs are found throughout the park.



Dead or dying Burning Bush shrubs with Ivy groundcover.



Tree roots visible and bare ground in a planted area.

Throughout the park trees and shrubs display shallow root systems with large roots visible on the ground surface. Plant stress can occur when shallow roots are exposed to extreme soil temperatures and dry surface soil conditions. This phenomenon was not species specific and was observed throughout the park on the lid. Shallow roots often occur when planting and subgrade soils do not provide adequate air, water, moisture and nutrients for deep rooting and plant growth. Shallow roots can also occur when irrigation watering cycles are short and moisture only penetrates the top few inches of soil before running off. Another common reason for shallow roots is water saturated poor draining soils blocking root access to oxygen within the ground.

Current Maintenance Practices

Interviews with City of Mercer Island maintenance staff provided some insight to better understand current vegetation maintenance practices, challenges, and capabilities within Aubrey Davis Park. The park is maintained by City of Mercer Island maintenance staff based on maintenance agreement between the City of Mercer Island and WSDOT. The maintenance agreement is very general, focused on basic upkeep and does not allow for required level of soil improvement and on-going maintenance needed for a healthy, growing landscape. City of Mercer Island has limited capacity for extensive maintenance needed based on the existing conditions today. As a result, prioritization of maintenance efforts is required with higher maintenance in Aubrey Davis Park focused on areas with larger number of users or on areas that are more prominent or visible. Higher maintenance areas generally include the park on the lid and overpasses with the rest of the area along the trail and forested edges receiving lower maintenance which is often response oriented. Over the years the required level of maintenance has grown significantly and no one was able to foresee this at the time of park design and establishment of the maintenance agreement.

All landscape areas within the park receive regular irrigation and the automatic spray irrigation system is fully functional. The irrigation system is in place as was originally installed during park construction, however City staff has done regular maintenance which mostly includes fixing broken pipes and replacing spray heads. Minor adjustments in some irrigation zones have occurred over time, some zones (mostly forest areas) have been turned off over the years.

Regular landscape maintenance, as said earlier, is largely based on the current landscape maintenance agreement with WSDOT which only covers basic upkeep (mowing and fertilizing lawn areas, weed removal, irrigation, limited pruning and mulching). Basic upkeep however does not adequately cover the park's maintenance needs. Improving the poor-quality sandy soils to provide sufficient nutrient levels for healthy plant growth, replacement of dead plants and trees to

keep planting areas full and healthy, upgrade irrigation system with rotary nozzles or drip emitters and English Ivy removal are examples of additional maintenance practices that the park is in need of but currently not receiving.

Poor drainage due to the poorly graded sandy soils is evident throughout the park with sport fields getting saturated very quickly when it rains. Maintenance staff noted planting areas within N Mercer Way, 77th Ave SE and 80th Ave SE overpasses drain very poorly. Also, certain species don't do well in poor draining soils throughout the park boundaries: Rugosa Rose, Burning Bush, and Otto Luyken Laurel to name a few. Also Maple, Pine and Cedar trees are declining or dying likely due in part to the poor draining soils.

City maintenance staff performs regular mowing and fertilizing of lawn areas, tree pruning is done every year mostly to prune low hanging branches and dead wood removal for safety. Maintenance within shrub and groundcover areas is limited to an as-needed basis to keep large shrubs off the trail. Mulch is being re-applied every other year in limited planting areas. Trail maintenance is limited to pruning for safety of trail users. The asphalt trail is challenging to maintain as many tree and shrub roots have encroached under paving causing pavement to heave upward and resulting in a possible tripping hazard to pedestrians.

Safety and Security

According to city staff, the City of Mercer Island has received multiple comments from park users and local citizens about park maintenance. Most fall under the following categories:

- 1) Shrubs/vegetation overgrown
- 2) Lack of lighting in the park
- 3) Vegetation encroaching into neighboring properties
- 4) Dead trees or plants present in the park

The park is generally safe and no police reports have been filed other than some specific accidents on the trail resulting from conflicts between different trail and/or park users. People sleeping or creating camps in the park, according to City staff, is more of a perception rather than reality. However, there have been numerous comments during the master planning process about areas of the park that feel more isolated, hidden or generally just not comfortable spaces to be in, as well as a number of comments reiterating the conflicts and safety concerns along the trail itself.

The National Institute of Crime Prevention (NICP) has developed Crime Prevention Through Environmental Design (CPTED) principles that should be considered as different areas of the park may be improved over time. These principles are also a good basis for evaluating the existing park features to address safety and security concerns of park users. Below are some general guidelines for CPTED principles that could apply to Aubrey Davis Park:

- 1) *Natural Surveillance*. Encouraging natural surveillance by opening views and providing visual connection between different parts of the park, including strategic orientation and placement of site furnishings and other physical site elements can greatly reduce undesired activities. Views into the park from the perimeter as well as from adjacent residences into the park help increase natural surveillance. Also important is to provide a 30-foot clear line of sight along travel paths. This is a general guiding principle to allow enough time for decision-making in case of potential threat in areas of higher concerns.
- 2) *Territorial Reinforcement*. Clearly established boundaries help define ownership. Low fencing, such as a split rail fence, that can easily fit within the overall character of the park, along the perimeter or use of natural elements to create separation and clearly defined space is recommended for territorial reinforcement. This helps define ownership, defines a space and creates a feeling of safety within the park boundary.

- 3) *Natural Access Control.* Provide multiple, clearly defined access points and ensure entrances are easy to locate from inside and outside the park with clear signage and visible focal points. Creating celebrated entryways that are easily identifiable from a distance helps identify escape route in case of a potential threat.
- 4) *Maintenance.* Regular maintenance goes a long way in creating a sense of ownership. Unmaintained areas attract more undesired activities. Picking up trash, regular mowing, replacing dead and dying plants, and maintenance of facilities and park equipment on a regular basis contributes to an overall perception and feeling of safety.

Some strategies to consider:

- *Lighting.* Lighting can greatly contribute to safety and sense of security within the park. Areas more prone to undesirable activities as well as any walkways open to the public at night should be illuminated to at least 0.6 foot candles along the length of the path and 30-feet on both sides of the walkway.
- *Public Art.* Public art can light up the space and when strategically placed, drawing visitors into the park. Public art can also be used for defining entrances, creating gateways and creating major landmarks within the park.
- *Landscape planting.* Applying a simple 6-foot/2-foot rule with trees limbed up to 6-foot height and shrub/groundcover planting kept to about 2-foot height allows better visibility between different parts of the park. This eliminates potential hiding places and, while it should not necessarily be applied everywhere in the park, it should be considered at access points, where park users have concerns about park safety and visibility (real or perceived) and for defining views into different areas of the park.
- *Signage and technology.* Use clear signage throughout the park. Signage combined with today's technology and interactive signage allow adjusting messages that may help users know the quickest route out of the park in case of emergency, where entrances and exits are, indicate how far they are to a known landmark, and to direct park users in the right direction.

Park Setting On the Lid

Planting areas within the Park Setting On the Lid are located on top of the concrete structure over I-90. Soil depths vary between an 8-inch depth in lawn and low groundcover areas to a 6-foot depth in tree planting areas with a subsurface drainage system installed below all planting areas. A majority of the planting in this area is grass lawn with trees, shrubs and groundcovers planted around the perimeter edges. Special accent planting of shrubs and groundcovers occur in select locations, generally around recreation features, like the playgrounds or picnic shelter, with only limited trees planted across the lid itself to provide shade for park users.

Character and Health

Grass lawn is the predominate vegetation type on the park areas of the lids. Trees, shrubs and groundcovers are generally planted around the perimeter edges of the open space areas at or near the lid edges. Existing plant palette used within the Park On the Lid area is a small list of hardy, drought tolerant shrubs and groundcovers suitable for the specified soil mix (sandy, low organic content) at the time of installation. However, some species certainly have performed better than others over time. Based on observations during site visits, Douglas Fir trees and Strawberry Tree shrubs are doing very well but Rugosa Rose and Burning Bush are struggling. Stretches of Rugosa Rose along the trail by the tennis courts and Burning Bush shrubs have died or are showing signs of declining health. Interestingly though, all of the species named here typically perform well in sandy, low organic soils, but for some reason that is not the case at Aubrey Davis Park. Likely a combination of multiple factors has affected certain species decline in typically suitable growing conditions. It could be that it's soil compaction that has occurred over the years combined with nutrient deficiency in the soil, plus heat stress from long dry summers combined with insufficient or broken irrigation that's causing decline of these species. A contributing factor could also be trimming of the shrubs and the time of year trimming occurred to keep vegetation from overgrowing pedestrian pathways and trail. Bare ground is visible in areas where plants have died back and around mature shrubs that have likely shaded out other groundcovers.



Shrubs and groundcovers overgrowing paving edges.



Dead trees in the park.

The grass lawn fields are heavily used by sports leagues and generally display a healthy grass turf condition. However, some areas of turf do show poor growth from excessive foot traffic and compacted soils. Grass lawn outside of the sports fields is mostly lining the trail or pathway edges with individual or smaller groupings of deciduous trees within the grass area. Grass outside of sports fields is more uneven with yellow patches and areas of bare ground under trees.

Trees within the lawn areas are generally doing better than those located within planting areas with shrubs and groundcovers. It could be that the lawn fertilization and increased watering cycle causes these differences.



Grass lawn with sport fields.



Bare ground in planting areas.

More of a unique area within the Park Setting On the Lid is the rooftop of the WSDOT maintenance building by the stacks for the tunnel below. There is no official access to public into this area, yet the step down onto the rooftop is low enough that it is easy to access. The rooftop looks unmaintained with trash laying around and the walls around the edges are covered with graffiti. Shrubs and smaller sumac trees are present on the rooftop with a more dense shrub mass along the back wall and more open areas along the other three edges. Within that large dense shrub mass about half of the shrubs are dead or dying.



WSDOT Maintenance building rooftop – walls with graffiti.



WSDOT Maintenance building rooftop – shrub mass along back wall.

Current Maintenance Practices

The Park Setting on the Lid landscape areas receive higher level of landscape maintenance due to the larger number of park users and organized, active uses in this area. Lawn within sport fields is aerated twice a year and mowed, watered, and fertilized regularly as needed to maintain high-quality turf. Lawn areas outside sport fields are smaller in size and

don't get the same level of maintenance – maintenance in these areas is limited to regular mowing and watering. Shrubs are selectively pruned on a yearly basis to keep vegetation off of paving edges and to create formal hedges. This pruning is limited to simply keep overgrown vegetation off the trail and pathways, not to address clearing sightlines. Trees are pruned on an as-needed basis to remove dead wood and remove lower hanging branches to maintain clear sightlines.



Overgrown vegetation blocking views within the park.



Overgrown shrubs that block views of trailhead and park.

Safety and Security

Many shrub beds have large mature shrubs that are overgrowing paving edges and blocking views into the park. This is a safety concern as trail users don't have clear sightlines to see what to expect, or what might be coming at them, from further down the trail. Clearing site lines is important to allow enough time for decision making and appropriate reaction as situations require. Conifer trees have low hanging branches limiting visibility within the park.

The rooftop of the WSDOT maintenance building displays obvious signs of unwanted behavior and does not feel safe nor is inviting for park users but is still easily accessible. With the need for regular maintenance and sense of ownership this particular area in its current state, it is likely to continue to attract undesired activities. Dense vegetation mass is blocking views into the far corners of the rooftop and provides many places to hide and sleep. There is very little surveillance from regular park users in this area which again encourages activities that are less desirable within the park.

There are over a dozen entrances to the Park on the Lid but there are no visual cues defining these entrances except at 3-4 of these entry points. The majority of the smaller park access points are heavily vegetated and views further into the park are blocked by overgrown shrubs. Large shrubs lining pathways create narrow channel-like conditions, are blocking views into surrounding areas, and provide potential hiding places.

The park has very little pedestrian scale lighting to extend usable hours and contribute to an overall sense of safety and security. Pedestrian lighting may be considered in areas of the park where nighttime use occurs and safety and security area are a concern.

Park Setting Off the Lid

The Park Setting Off the Lid planting areas are perimeter plantings located between the I-90 lid plantings and adjacent perimeter roadways. The Park Setting Off the Lid areas include Greta Hackett sculpture gallery in the Town Center and other more open, park-like areas within the ADP Corridor. These areas have a park-like feel and consist of a mixture of informal trees, shrubs, groundcovers and lawn areas along adjacent street edges.

Character and Health

Grass lawn is the predominate vegetation type with trees, shrubs and groundcovers strategically planted to screen parking and I-90 freeway walls. Perimeter trees and shrubs function as a buffer to prevent public access to the freeway edges and portals. The grass lawn is generally located along paths or adjacent to roadways, but isn't large enough for any specific activities (organized or informal).



Trails with lawn, trees, shrubs and groundcovers.



Park at Greta Hackett Outdoor Sculpture Gallery.

Lawn areas display a healthy green turf with some yellow patches visible. Shrubs and groundcovers are overgrown with shrubs reaching their maximum mature size. Areas of bare ground are visible where groundcovers are not completely covering ground surfaces or shrubs have died off. Some walls along the I-90 freeway edges have extensive planting to screen views, while other areas use Boston Ivy planting to help soften the visual appearance of concrete walls.

Trees within Park Setting Off the Lid areas are in a reasonable health and greater species diversity is evident compared to the Park Setting On the Lid areas. Pear trees are large for their species and no signs of branch failure was observed. Cedar trees, however, are in decline. Shallow tree and shrub root systems are visible on the ground surface similar to the Park On the Lid areas causing plant stress with exposure to extreme soil temperatures and dry surface soil conditions.

Current Maintenance Practices

The Park Setting Off the Lid landscape areas generally receive a higher level of landscape maintenance due to the high number of users and visibility from adjacent sidewalks and roadways. Lawn is watered, fertilized and mowed regularly to maintain a high-quality turf aesthetic. Aeration is not performed in lawn areas outside the sport fields within the Park On the Lid areas. Shrubs are pruned on a yearly basis to keep vegetation off of paving edges or to create formal hedges, but are not specifically pruned for sight distances. Tree pruning is performed on as-needed basis to clear dead and low

hanging branches.



Gateway sign at the Sculpture Gallery.



Street edge with poor visibility into the park.

Safety and Security

Park Setting Off the Lid areas generally maintain clear views into the landscape areas from sidewalks and adjacent roadways. While planting along the street edges is mostly lawn with trees allowing clear sightlines, larger shrubs block views deeper into the more distant areas of the landscape and potentially provide places to hide. To maximize natural surveillance from adjacent areas and within the park, shrub and groundcover plantings should be kept to a maximum height of 2 feet within sight lines unless taller plants are needed for perimeter screening purposes. High concentration of art within the Park Setting Off the Lid area helps create identity and ownership. Use of art in public spaces helps to activate the space with wayfinding and, along with more programmed use, is a great tool for reducing tagging and other types of undesired activities. Similar to Park Setting On the Lid, the areas within Park Setting Off the Lid would benefit from pedestrian scale lighting to extend usable hours and contribute to the overall sense of safety and security.

Bridge Planting Edge

The Bridge Planting Edge contains planting areas located on the I-90 bridge decks at 76th Ave. SE, 77th Ave. SE, 80th Ave. SE, Island Crest Way, Shorewood Drive, North Mercer Way and East Mercer Way. The Bridge Edge plantings consist of various sizes of shrub and groundcover plantings with a mix of deciduous and evergreen trees in raised planter boxes.

Character and Health

Shrubs and groundcovers display an overgrown character with many of the shrubs reaching their maximum mature size and some areas of bare ground visible where groundcovers are not completely covering ground surfaces. Trees are planted in individual concrete planter boxes with a variety of tree species: Austrian Pine, Green Ash, Cedar, Douglas Fir, and Flowering Pear. Some of the species are too large for the size of the planter box and available soil volume. Trees show major health issues on all of the overpasses with a number of trees dead or in decline. Soil volume in the planter boxes has decreased to as little as half of its original volume. Signs of drought stress are present and many trees have outgrown the boxes and developed a lean. Dominant groundcover throughout the Bridge Planting Edge areas is the noxious weed English Ivy, leaving very little to no room for other species. Shrubs and groundcovers have died due to aggressive Ivy growth or are showing signs of declining health.



Trails bordered with lawn, trees, shrubs and groundcovers.



Overgrown shrubs with sparsely vegetated groundcover.

Current Maintenance Practices

The Bridge Edge landscape areas receive a higher level of landscape maintenance due to the high visibility from adjacent sidewalks, trail and roadway. Over the years the planter boxes on the bridge overpasses have received very little fertilizer – according to the maintenance staff perhaps about 4 times over the last 15 years fertilizer has been added to the concrete planter boxes. Maintenance staff noted that poor drainage is evident within the planting areas on overpasses at W Mercer Way, 77th Ave and 80th Ave. Shrubs are pruned on a yearly basis to keep vegetation off of paving edges but not specifically for sight lines. Tree pruning is performed on an as-needed basis.



Overgrown trees in landscape planters.



Staggered planter boxes along the trail edges at bridge crossing block views from adjacent roadway.

Safety and Security

Vegetation is densely planted along the perimeter of the bridge deck edges and railings to minimize public access. This helps reduce the opportunity for objects to be thrown onto the roadway below. Tall shrubs and raised planters between the roadway edge and pedestrian path block line of sight and discourage natural surveillance by passing vehicular traffic. In case of a pedestrian or bicyclist needing help, passing cars would not be able to see them. Keeping shrub and groundcover planting low between the roadway and pedestrian pathway helps minimize places to hide and allows for a longer decision making and reaction time in case of a potential threat.

Forested Edge Off the Lid

The Forested Edge Off the Lid planting areas consist of mostly conifer forest planting areas located between the I-90 lid retaining walls and adjacent perimeter roadways. Planting in these areas consist of mature mixture of trees, shrubs, and groundcovers forming a dense forest environment. These forest areas are not as heavily used due to the dense vegetation and unfavorable terrain conditions, unless a segment of the trail or well used path connection cuts through the area.

Character and Health

Native trees (Douglas Fir, Western Red Cedar, Big Leaf Maple, Western Hemlock) provide a natural forested landscape character and buffer along the edges of I-90. A large percentage of the forest understory is covered with the English Ivy. Over time, English Ivy crowds out desirable shrubs and groundcovers leaving a weakened forest condition without plant diversity. Densely planted forest has very little mid canopy growth due to tight on-center planting of forest trees. Little light is able to penetrate through the existing tree canopy, making it difficult for the undergrowth to establish and contribute to natural renewal and long-term forested condition. Slopes in these areas are often steep and some areas are difficult to pass through due to dead branches. In addition to paved pedestrian path connections and trails cutting through the forested areas, there are also some smaller soft surface trails used by nature lovers and dog walkers. Forested areas off the lid get fewer users compared to the park on the lid.



Trails bordered with lawn, trees, shrubs and groundcovers.



Dead branches in a densely planted forest.

Current maintenance Practices

The Forested Edge Off the Lid landscape receives a lower level of landscape maintenance due to its natural character and lower number of users. Trees are pruned on an as-needed bases and much of the maintenance is response based to keep vegetation off adjacent trails and roadways. No other regular maintenance efforts go into these areas.



Steep slope with trees and dense ivy groundcover.



Native restoration plantings.

Safety and Security

Densely forested areas have some dead and dying trees which can become a hazard for uses on nearby trails. Conifer trees have low hanging and dead branches extending all the way to the ground, making some areas inaccessible and limiting visibility. Large shrubs are overgrowing pathway edges and block views for desired line of sight which making these forested areas less inviting. Narrow pathways with overgrown vegetation are perceived as less safe while having dense vegetation pulled back from pathway edges helps to open up line of site and allow time for decision-making and reaction in case of potential threat.



Pedestrian path aligned with dense vegetation.



Conifers with Ivy groundcover.

Trail Corridor

The Trail Corridor planting areas are located adjacent to the Mountains to Sound Trail (I-90 Trail) and framed by bordering roadways. The Trail Corridor plantings consist of a mix of tree, shrub, and groundcover plantings with some stretches of lawn along the trail's edge.

Character & Health

The trail landscape consists of mostly native trees, shrubs, and groundcovers with higher use of ornamental plants within the Town Center segment. Some stretches through the Park On the Lid and trail connections to the Town Center and are lined with lawn. Signs of struggling plant health are present: trees and shrubs show signs of stress likely due to poor quality sandy soils, drought conditions and lack of irrigation. Tree roots are visible on the surface of the ground, bare ground is exposed in planting areas with no mulch topdressing. Stretches of Rugosa Rose within the Park on the Lid by the tennis courts have died along trail's edge, pavement is heaved by roots of adjacent trees and shrubs posing a potential hazard for trail users.



Trail at the east end of the Park On the Lid.



Trail lined with overgrown shrubs on both sides.

Current Maintenance Practices

Different areas of the trail corridor landscape receive different levels of landscape maintenance. Trail segments through the Town Center and within the Park on the Lid that are lined with stretches of lawn receive higher level of regular maintenance. Outside of these boundaries receives a lower level of maintenance due to the less prominent location and more native plant palette. Trees and shrubs are pruned as needed annually to keep vegetation off of adjacent trail and roadways. Encroaching tree roots cause heaving of asphalt paving throughout the park limits creating a maintenance challenge for city staff. Higher level of maintenance is needed for the asphalt trail to keep overgrown vegetation off and accommodate the need for necessary paving repairs.

Safety and Security

According to City staff, multiple accidents have occurred between trail users due to limited visibility along trail. Large shrubs are overhanging trail paving edges and blocking necessary sight lines along the trail as well as limit views into adjacent areas of the park.



Trail with native and ornamental plantings.



Trail with limited visibility.

Trimming back encroaching vegetation along trail edges allows for necessary views up and down the trail to visually spot other trail users and allow time for proper decision making.

General Recommendations

Shrub and Groundcover Planting Areas

Within all areas of the park, landscape plantings display a stressed unhealthy growth habit. This condition is mostly caused by the low organic content, poorly graded sandy soils that exist on site. The landscape plantings also display a general lack of diversity that does not support the City's long-term goals for sustainability and wildlife habitat. To help increase plant diversity, reduce maintenance and alleviate the poor soil conditions, the following options are recommended for better vegetation management and restoration efforts throughout the park:

1. Infill Planting

This option proposes to infill plants within existing tree and shrub beds with species better suited to grow in soils currently found within the limits of the park. Infill plants would be selectively planted within existing vegetation with the goal of solid vegetation coverage of all planting areas resulting in no visible bare ground. This is a long-term approach and improvements in the overall character and health would be noticeable over longer period of time. At time of planting, compost should be added to subgrade soils at a ratio of 33% by volume to support healthy plant growth. Regular compost mulch topdressing is also recommended until plants completely grow and cover all bare ground. This option is recommended for areas that are not as visible to the public, outside of the programmed park areas, and generally consists of only partial vegetation decline. If the landscape is still mostly intact, free of English Ivy and able to serve its original function (as a buffer, forested edge, etc.) then this is a good, low-cost option to consider.



Infill plant where plants area showing signs of stress and decline. Consider wood rail fence barrier to deter foot traffic until plants become established.



Trees, shrubs and groundcovers all display signs of declining growth. Remove all vegetation and improve soil with scoop and dump method.

2. Scoop and Dump Soil Restoration

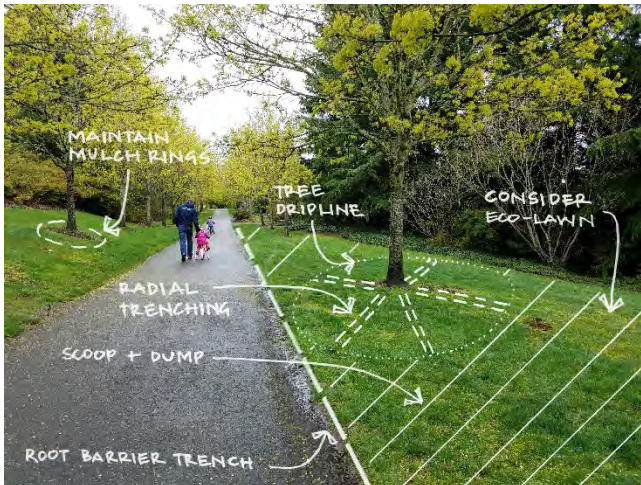
Scoop and dump soil preparation is a method of introducing compost into subgrade soils to improve soil structure, organic content, air and water holding capacity, nutrients and microbial activity. Scoop and dump soil preparation is accomplished by placing a compost layer (33% by volume) over existing soil and scooping with a backhoe to a specified depth. The scooped material within the backhoe bucket is raised to a 3 to 4-foot height and dumped back into the same hole that was excavated. Compost and existing soil should have veins and clods within the soil profile, therefore thorough mixing of compost and existing soil is not recommended. If the planting area is covered with

English Ivy, this method will uproot the Ivy plants allowing for easier vegetation and root removal. Dumped soil is then lightly compacted and hand raked to a finish grade prior to planting. During the process of scooping and dumping, the irrigation system may be damaged and require extensive repairs. Irrigation system should be protected where possible prior to excavating subgrade soils.

This option is recommended for planting areas that need to be heavily replanted due to Ivy removal, reduced sight distances, overgrown vegetation, blocked view corridors, and where significant die back or stunted growth has already occurred.

3. Radial Trenching Soil Restoration

This approach proposes trenching within drip lines of existing trees to improve soil under the tree canopy while also avoiding damage to existing tree roots. Working within critical root zones of existing trees requires care and close collaboration with a certified arborist to minimize impact and avoid damage to roots. Trenches are generally constructed radially from the tree, and are about 12" wide and 24" deep. The process of adding compost to subgrade soils is similar to the scoop and dump method described above but the work is limited to the narrow 12-inch wide trench. An air spade pneumatic soil excavator tool is recommended in lieu of a backhoe in areas where tree roots may be easily damaged.



Apply radial trenching soil restoration method within tree drip lines and maintain mulch rings at base of trees.



Remove overgrown vegetation along pathways and trail edges.

Remove Overgrown Vegetation

Removal of overgrown vegetation encroaching onto trail and pathways and replacing with smaller more compact forms better suited to edge the pathways and trail reduces amount of required trimming and dead wood removal needed long-term. Overgrown plants also block views into the park and can create unsafe environment by providing hiding places and attract undesirable activities.

Ivy Removal Areas

English ivy is considered a noxious weed because it overtakes the entire planting area creating a monoculture and crowds out other nearby desirable plants. English Ivy also decreases wildlife habitat by reducing diversity. Options to remove English Ivy:

1. Hand Method

- Where **scoop and dump** is applied to a landscape area, remove the English Ivy along with other vegetation. Ivy is a very hardy plant and even a small amount of buried root material can survive and start a new plant.
- Where **scoop and dump** soil preparation is not possible under drip lines of existing trees, manual removal methods are recommended in lieu of chemical herbicides. English Ivy's waxy foliage repels herbicides, which run off to damage nearby plants and pollute water systems. The best method for removal is to begin by cutting all vines that have scrambled up trees and shrubs. Remove Ivy from ground by pulling strands and prying roots with a small hand-mattock. Physically remove all vegetation and roots to the greatest extent possible.
- Apply 3-inch depth of arborist wood chip mulch in ornamental planting areas and in forested areas, increase the depth of mulch topdressing to 6-inches to help repress regrowth of the English Ivy prior to planting any new plants.
- Monitor planting areas for a one-year period with continued English Ivy removal. During the one-year period continue to remove English Ivy vines where visible.
- After one year plant new shrubs and groundcovers that will tolerant sandy, low organic content subgrade soils. Select a variety of plants that provide a layered landscape of tall, medium, and low growing plants that completely cover the ground surface and crowd out invasive weeds. See recommended Plant List – Appendix ____.
- Continue to monitor and remove English Ivy until completely removed from planting area.



Hand remove ivy inside tree dripline and use **scoop and dump** method outside of driplines.

Active Recreation Lawn Areas

Ongoing maintenance should include fertilization and water audits to reduce water use. Soil laboratory test results provide recommended fertilizer applications. See Appendix _____. In addition to regular maintenance, the following is recommended:

- Aerate and de-thatch lawn to increase water and nutrient infiltration every season.
- Apply an organic, slow release fertilizer per soil laboratory recommendations and retest soils annually to determine additional nutrients.
- Perform yearly irrigation audits to reduce water use.

- Strip and resurface, including any drainage improvements needed, with new subsoil and natural turf approximately every XX years

Non-Recreation Lawn Areas

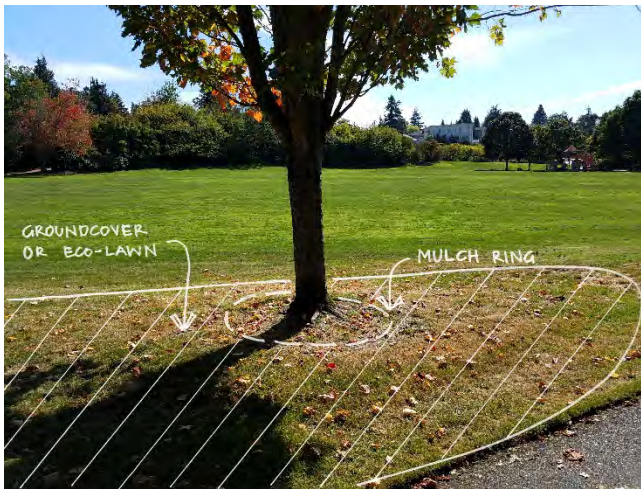
Removal of mowed grass and selection of drought tolerant eco-lawn or groundcover planting is preferred. Allowing the lawn to 'brown out' is another option available. To remove the mowed grass, replacement can occur as follows:

1. Eco-lawn Option

Lawn areas not used for active recreation could be turned into a meadow-like eco-lawns that do not require automatic irrigation, fertilizer or regular mowing. Eco-lawn seed mixes provide a mixture of low growing grass and perennial flowering plant species. These lawn areas may be mowed only once or twice a year to an approximate 6-inch height.

2. Drought Tolerant Groundcovers

Replace high water use lawn with low water use groundcovers and shrubs. Select groundcovers that grow low and tolerate occasional foot traffic from nearby active recreation lawn areas, or larger shrubs to help limit disturbance through planting areas and direct circulation towards the desired locations.



Consider groundcover or eco-lawn in areas where lawn is not used for active recreation. Improve soil with radial trenching and scoop and dump methods prior to replanting.



Trench along paving edge to stop tree roots from heaving adjacent paving. Install 18" depth root barrier to prevent future root problems. Improve soil with targeted trenching and scoop and dump methods prior to replanting.

Improve Irrigation System

A few strategies are described below to improve the irrigation system and reduce landscape maintenance.

The Irrigation system in place is old and could be replaced with more efficient new system using less water and minimizing overspray and runoff. The existing spray and rotor heads apply water more quickly than the compacted, poorly graded sandy soils can absorb, thereby wasting water due to runoff. Changing spray heads to drip or rotary nozzles would reduce water runoff and improve plant health with slower and deeper water application. Lawn areas not used for active recreation could be turned into meadow-like eco-lawn fields that don't require irrigation or changed to drought tolerant groundcover planting areas. This would reduce areas where irrigation is needed and thus reduces irrigation maintenance and water use.

Heaving Sidewalk Paving

Many of the sidewalks and trails display heaving pavement due to shallow tree roots. Shallow tree roots are caused by the poorly graded sandy soils existing on site. To prevent this condition from becoming worse, tree roots should be cut with a soil trencher at pavement edge and root barrier installed to 18-inch depth to prevent future root/pavement conflicts.



Soften the look of blank walls with green screen vine planting. Also, application of art works effectively to deter tagging.



Heaving paving is a potential hazard for trail users.

Blank Walls

To soften the aesthetics of blank walls and reduce the potential for graffiti and tagging, vine plantings may be considered at base of blank walls. Vines may be either self-clinging or supported with green screen lattice systems attached to wall.

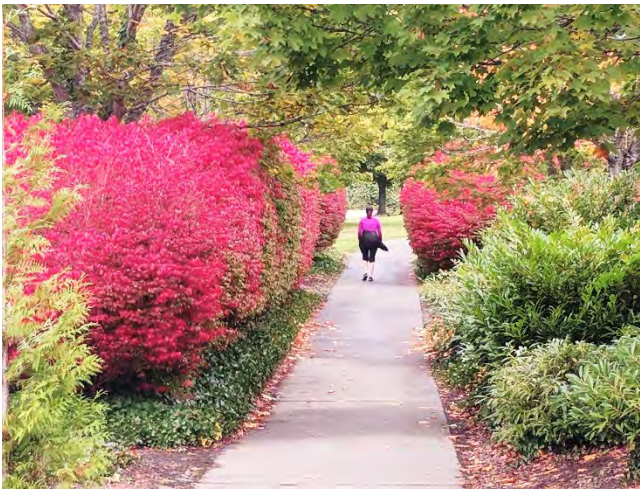
Mulching Around Trees

Mulching around trees helps hold moisture, provide necessary nutrients and improves long term health of the trees. A 6-foot to 8-foot diameter, 6-inch deep ring of arborist mulch will help protect tree trunks and roots from mower damage and increase moisture and nutrient holding capabilities within the soil.

Site Specific Recommendations

Park Setting On The Lid

- Where existing shrubs have overgrown their planting bed and/or are blocking views into the park, selectively remove and replace shrubs with lower growing shrub varieties. Alternatively, some shrubs, such as the Strawberry Tree can have lower branches selectively removed to open views below the vegetation canopy to create a small tree form.
- Where existing shrub beds display declining health or bare ground, replace entire shrub bed with compost amended soils and new shrubs and groundcovers. Plants should be selected to completely fill in planting areas but not overgrow maximum height and spread requirements. Consider expanding plant selection to provide visual interest and emphasize high visibility areas of the park.
- Removing English Ivy groundcover from all planting areas and replace with alternative groundcovers.
- Consider Eco-lawn or drought tolerant groundcover in lieu of mowed lawn.
- Consider upgrading irrigation system to low water use rotary nozzles or drip emitters.
- Improve WSDOT maintenance building roof planting to reduce potential of undesirable activities.



Remove all overgrown vegetation and Ivy groundcover. Improve soil with radial trenching and scoop and dump methods prior to replanting.



Remove trees that display poor growth with damaged trunks and/or shallow root systems.

Park Setting Off the Lid

- Where existing shrubs have overgrown their planting bed and/or are blocking views into the park, remove and replace shrubs with lower growing shrub varieties.
- Where existing shrub beds display declining health or bare ground, replace entire shrub bed with compost amended soil preparation and new shrubs and groundcovers. Plants should be selected to completely fill in planting areas but not overgrow maximum height and spread requirements. Consider expanding plant selection to increase plant diversity and emphasize high visibility areas of the park.
- Removing English Ivy groundcover from all planting areas and replace with alternative groundcovers.
- Consider upgrading irrigation system to low water use rotary nozzles or drip emitters.

- Consider replacing mowed lawn with a lower maintenance and more environmentally friendly eco-turf or ornamental groundcovers in areas where active or informal play does not occur.
- Consider vine panels and green screens to help screen and soften the look of blank walls.

Bridge Planting Edge

- Maintain vegetation barriers to prevent public access to the bridge deck railings and freeway overlooks.
- Keep vegetation low between roadway and pedestrian path/trail. Taller shrubs may be considered along back edges of bridge planting areas. Where existing shrubs have overgrown their planting bed and/or are blocking views remove all vegetation and replace with lower growing shrub and groundcover varieties.
- Remove English Ivy groundcover from all planting areas and replace with alternative groundcovers.
- Where existing shrubs beds display declining health and/or bare ground within groundcover beds, remove all vegetation and replace with compost amended soil preparation and new shrubs and groundcovers.
- Consider low growing ornamental perennials and groundcovers to provide greater color, texture and visual interest for the high visibility intersections and roadway edges.
- Consider painting existing concrete planter boxes to compliment surrounding plantings.
- Consider enhanced architectural planters in lieu of the existing square concrete planter boxes.
- Consider upgrading irrigation system to low water use rotary nozzles or drip emitters.



Remove all existing vegetation and improve soil with scoop and dump method.

Forested Edge Off the Lid

- Where existing shrubs have overgrown their planting bed and/or are blocking views into the park, remove and replace shrubs with lower growing shrub varieties.
- Remove English Ivy groundcover from all planting areas and replace with alternative groundcovers.
- In native conifer forest, selectively thin/ remove trees to encourage understory plant growth. Remove English Ivy and replace with compost amended soil preparation and native shrubs and groundcovers to enhance the native forest environment.
- Consider native plants and habitat enhancements within the forest understory planting areas to encourage wildlife and pollinators.

Trail Corridor

- Where existing shrubs have overgrown their planting bed and/or are blocking views into the park, remove and replace shrubs with lower growing shrub varieties.
- Remove English Ivy groundcover from all planting areas and replace with alternative groundcovers.
- Consider native plants and habitat enhancements within understory planting areas to encourage wildlife and pollinators.
- Provide minimum 2-foot wide shoulders along trail edges clear of all lateral obstructions, including shrubs and groundcovers.
- Cut tree roots and install root barrier along edges of paving.
- Keep shrubs and groundcovers low – up to 2-feet maximum height to provide clear sight lines along the trail corridor at curves and roadway crossings.

APPENDIX C

ARBORIST NOTES



ARBORIST NOTES

DATE: December 30, 2018

SUBJECT: Mercer Island I 90 Lid Landscape
Vegetation Condition and Recommendations
Redline Map Notes

FOR: HBB Landscape Architecture
Attn: Merit Oviir
215 Westlake Avenue North
Seattle, Washington 98109-5217

FROM: Urban Forestry Services, Inc.
Anna Marie Heckman
ISA Board Certified Master Arborist® #PN-6153B,
ISA Tree Risk Assessment Qualified

Map 1 Notes



1. Forest Edge Off Lid –

Existing: Douglas fir, *Pseudotsuga menziesii* and Western red cedar *Thuja plicata* are 10-15 ft apart. English ivy, *Hedera helix* and Blackberry understory *Rubus armeniacus*.

Recommendation: Crown raise trees in forest. Slowly thin forest over a 5-year span to retain trees at 30' spacing. Remove dying cedar trees. Remove invasive species. Add wood chip mulch for soil protection and restoration.



Forest Setting on Edge of Lid - Soil sample was taken for texture analysis.

Existing: Soils are gravelly sand with large round rocks. Original specifications called for compost mix into subgrade on site.

Recommendation: Replenish soil nutrients in forest with tub grind or arborist wood chips to assist with drought tolerance and weed suppression.



2. Trail Corridor – Landscape trees

Existing: Green ash, *Fraxinus pensylvanica*, Amur maple, *Acer ginnala*, planted linearly 20 feet apart and less than 10 ft from the wall. English ivy and landscape shrub understory.

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Trees in this area are in poor health. The bike path has large angular rock along the edge impacting vegetation growth.

Recommendation: Trees should be replaced when landscape areas are renovated. Investment in tree pruning for structure is not worthy for these specimens. Soils should be rejuvenated for deeper root growth when landscape is replaced.



Park Setting on Lid - Soil sampled from landscape area for nutrient analysis.

Existing: Soils were compacted, sandy and had extensive fibrous root mat through the top inch. Soil organic matter and nitrogen levels are low.

Recommendation: Add steer manure and biochar to landscape soils to improve microbial soil conditions.



Photo 1. Trees along the trail corridor within a landscape edge are drought stressed. Some trees require removal. Many require structural pruning and soil enhancement.



3. Park Setting on Lid – Trees in lawn area

Existing: Green ash, and Norway maple, *Acer platanoides*, spaced 20 ft apart. Trees have very small soil protection rings and shallow root systems. Shallow roots are being damaged by mowing operations. In general trees in the lawn areas are in better health than those in the landscape areas. Watering cycles, plant competition, and soil vegetation cover may explain some of these differences.

Recommendation: Structural and crown raise trees. Increase soil protection ring size to incorporate groups of trees and reduce mowing in circles. Reduce soil compaction with an air spade and add arborists wood chips to tree rings.

2



Photo 2. Trees in lawn areas adjacent to the bike path are larger and healthier than those in the landscape. Soil compaction and shallow roots are evident. Trees should be crown raised and structurally pruned.

3



Photo 3. Trees growing along the edge of the base of lid walls are tall enough to block valuable views from the park. Removing trees or crown raising will impact the screening for neighbors adjacent to the wall. Thin trees and replant to create multiple size canopies along the wall and window prune remaining tall trees for the view over the top of the wall.

Map 2 Notes



4. Park Setting on Lid – Trees in Landscape and Trees in Lawn

Existing: Norway maple, red maple, Amur maple. Trees have very small internode growth some dieback in the crown. Root exposure is being impacted by mowing operations in lawn and are not covered in mulch in landscape.

Recommendation: Structural prune. Increase tree ring size to squares in lawns along road or create a planting strip to reduce mowing in circles. Reduce soil compaction with an air spade and add arborist wood chips.



Park Setting on Lid – Soil sample from lawn taken for nutrient analysis.

Existing: Soil was higher in nitrogen and in organic levels than other soil samples on the lid. Levels are still below desired rates.

Recommendation: Lawn recommendations to improve tree root growth are to water deeper around trees and increase tree ring size in areas where lawns are not growing well. Add arborist wood chip or other wood chip mulch to tree rings to improve soil compaction.



Park Setting on Lid – Soil sampled from landscape area for structural analysis

Existing: Soil was taken under ivy cover. Texture is sandy and was unusually dry given the recent wet weather.

Recommendation: Soil structure may not be readily improved other than by adding compost or biochar to decrease density. If sand size is not diverse, compaction is highly possible.



Photo 4. Extreme drought conditions are apparent in some irrigated landscape areas indicating a need for increased funding for irrigation maintenance and adjustments through the season.



Photo 5. Trees surrounding play areas have some dieback and require structural pruning and crown cleaning.



Photo 6. The health of many trees throughout the trail corridor is poor. Landscape soil improvements to improve water retention and reduce temperature fluctuation may improve health. Extensive pruning to thin, improve structure and raise crowns can be conducted to improve visibility in trail junctions.



5. Trail Corridor on lid – Trees in Landscape and Trees in Lawn

Existing: Norway maple, red maple, *Acer rubrum*, Amur maple, Katsura, *Cercidiphyllum japonicum*, and flowering dogwood *Cornus florida*.

Trees have very small canopy internode growth. Some areas have greater drought signs with full areas of shrub and tree die back. Dieback seems to be more site specific than species specific along the trail corridors. Many dogwood trees in the sun are dead. Nearly all the Amur maples are overgrown with extensive crown dieback on the interior.

Soil within the tree root zones are bare and compacted. Roots are highly visible on the surface. Some trees have roots growing into and buckling the pavement of the bike trail.

Recommendation: Remove dead trees and renovate soils in large landscape areas prior to replacing. Where roots are lifting the bike trail, grind roots off (sever) at edge of trail and install root barrier when trail is repaved. Many trees are planted closer than 3 feet from trail. Install future plantings further from trail when possible to allow more root growing space. Improve soil conditions for greater root space for trees in landscape by adding surface compost and arborist wood chips.

Conduct an irrigation coverage audit in mid-summer when plants are full grown to provide information relevant for seasonal adjustments in watering due to plant growth. Irrigation zone spray/soak cycles may require assessment to water deeply without surface runoff in compacted soil areas.

7



Photo point 7. This is a low maintenance natural area to the east of the vents. This landscape roof top garden is weedy and in very poor condition. The whole area can be removed and replaced.



6. Forest Setting on Edge of Lid

Existing: Douglas fir and Western red cedar plantation. 8-16 ft apart. English ivy understory. Trees are crown raised for under canopy visibility. Cedar trees are dying, and Douglas fir show poor canopy growth. Trees on the inner portion of the forest area are tall and thin with low crown ratios. Diameters range from 8-10 inches. Edge trees are larger in diameter (12-15 inches) and have healthier unevenly distributed crowns. A tree core from a suppressed Douglas fir shows consistent very slow tree ring growth indicating long term poor site conditions.

Recommendation: Remove ivy and add hog fuel or arborist wood chips. Slowly thin forest over a 5-year span to retain trees at 30' spacing. Remove dying cedar trees. Remove bark beetle infested Douglas fir trees before they fully die. Replant forest areas as openings expand to maintain a rotation of multi-story conifer forest to provide sound and visual barriers between neighborhoods, parks, freeways, and walls.

8

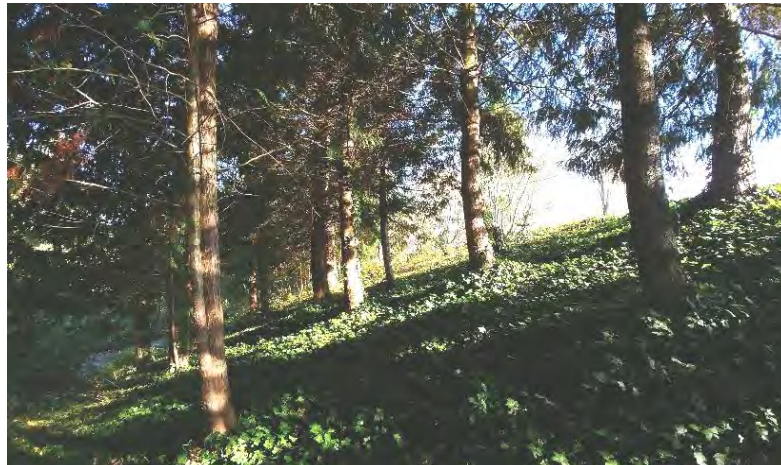


Photo 8. This is a forest area on edge of the lid. Trees in this area have been crown cleaned to allow visibility under the canopy. Trees in the center of the planting have low crown ratios and many are suffering from bark beetle damage.

Map 3 Notes



7. Trail corridor on lid – Trees in Lawn and landscape and forest edge.

Existing: Red oak, *Quercus rubra*, Norway maple, western red cedar, arborvitae. Soils are very compacted, in high use area and lawn is not growing well under tree canopies. Tree roots are shallow and impacting trail.

Recommendation: Trees in lawns adjacent to trail may be converted to planter strips to decrease mowing maintenance and protect highly trampled soils. Continual addition of arborist wood chip mulch will prevent further damage. Trees planted between the retaining wall and trail should be small to medium columnar trees to cover the wall and not require pruning for clearance. Crown raise trees along bike trail along forest edges.



Photo 9. Trees in a lawn adjacent to the trail corridor are on the edge of a steep hill side. The soil compaction and poor grass cover make this area difficult to maintain as a lawn.



8. Park maintenance area off lid.

Existing: Blackberry covers much of this non maintained natural area. This area has potential to add to the cities tree canopy goals and provide greater use for maintenance operations. Currently it is a source of weeds to neighbors and the adjacent park.

Recommendation: Remove blackberry from this area and convert to grass. This landscape could be used as a staging area for wood chips or ivy piles and a holding nursery for replacement plants and volunteer resources for the lid.

10



Photo 10. Where English ivy has been removed, shallow roots are exposed in planted conifer forest area. Invasive removal and the addition of wood chip mulch or hog fuel in these areas will significantly improve forest health conditions.



9. Park Setting on Lid – Low Maintenance Natural Area.

Existing: Black cottonwood, *Populus balsamifera*; Western red cedar, Douglas fir, Norway maple, Big leaf maple *Acer macrophyllum*; Deododar cedar, *Cedrus deodora*; Pacific Madrone, *Arbutus menziesii*; strawberry tree, *Arbutus unedo*; pear, *Pyrus calleryana*. Many species such as the black cottonwood and the random madrone look to be naturally established and some trees look to be random additions into these areas after landscape renovations were complete.

Cedar trees are dead and Black cottonwood are a high risk to have along the freeway. Summer branch drop, and poor structure lend them to breaking in low storm conditions. Trees in this landscape do not look groomed or maintained.

Recommendation: Remove cedars and black cottonwood trees. Replace with another species. Soils may benefit from compost and wood chip enhancements. Trees and shrubs should be pruned for visibility throughout but retain the noise and large-scale visual blocking of the freeway. Pruning techniques should maintain the natural area look

11



Photo 11. Park setting on lid. This natural area along edge of freeway should have cottonwood trees and dead trees removed. vegetation should be pruned and thinned to open for greater visibility.

12

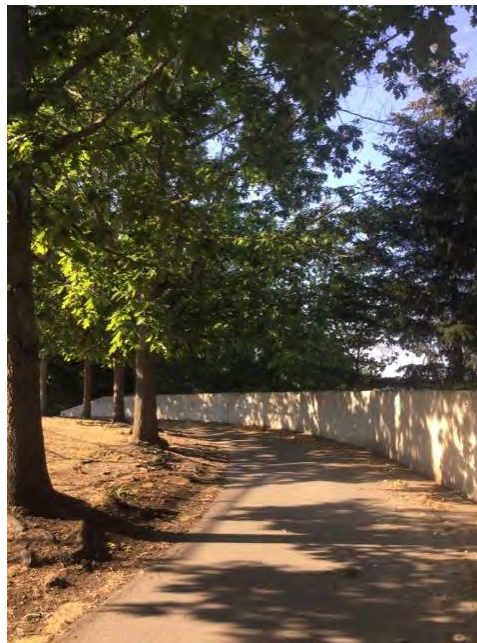


Photo 12. Trail Corridor with oak trees in a lawn area to the left and trees growing above the wall to the right.

Map 4 Notes

No photos or site observations were recorded for Map 4

Map 5 Notes



10. Park setting off lid – Trees in landscape, in containers and in lawn.

Existing: Flowering pear, *Pyrus calleryana*, sweet gum, *Liquidambar styraciflua*, Austrian pine, *Pinus nigra*, columnar beech, *Fagus sylvatica* var. Norway maple, red oak, red maple, Douglas fir, western red cedar, giant sequoia, *Sequoiadendron giganteum*. Trees in this area are in reasonable health and have greater species diversity than what is found on the lid. The pears in the landscape bed have grown large for their species and have not shown signs of branch failure. Soil compaction and shallow root issues do not seem dramatically different to those on the lid. Cedars in this area are in decline.

Recommendation: All trees in this area require structural pruning. Tree wells in the lawns can be increased and arborist wood chip mulch can be used to enhance soil. Current wood chip mulch applications should be pulled away from trunks to follow current best management practices for tree health. Trees along the freeway wall can be pruned for mall scale visibility into the landscaping while retaining sound and large scale visibility barrier. Dead and dying cedars should be removed from the site.



Soil sample Park setting off lid - Sample was taken from a lawn area for nutrient analysis.

Existing: Soil texture was a similar high sand content consistency to samples taken on the lid. Nutrient analysis was also like those on the lid where nitrogen and organic carbon were slightly higher than samples taken outside the lawn areas.

Recommendation: As with the other soil samples, increasing organic content and nitrogen in the soil is necessary prior to managing other nutrient issues.

13

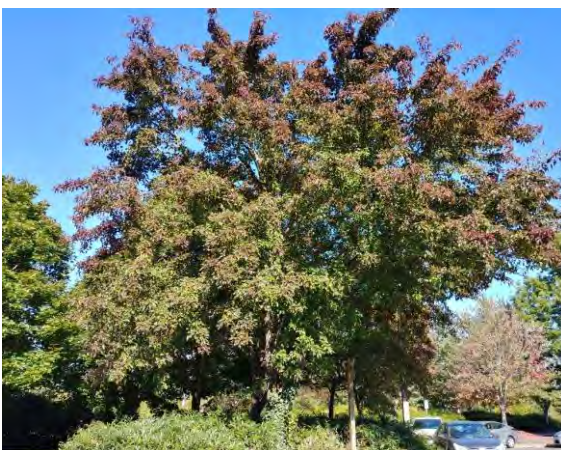


Photo point 13. Pears in the landscape area are large for their species. Landscape beds and lawn areas have similar issues to those found on the lid. High use, soil compaction and low soil organics impact planting areas. Cedar trees along forest plantation are dead.

Map 6 Notes

No photos or site observations were recorded on Map 6

Map 7 Notes

14



Photo point 14. These examples of trees on and adjacent to a Bridge Planting Edge show major health issues. Dead trees should be removed.



11. Forest Setting off Lid.

Existing: Big leaf maple, western red cedar, Douglas fir, western hemlock

This site is just outside the area impacted by freeway construction. This forest area has greater species diversity. The trees are older, larger and spaced further apart. A tree core shows tight ring growth similar to that found on the Forested lid edge. Cedar and hemlock trees are suffering in this area. Soils are varied with significant organic layer accumulation where ivy was removed.

Recommendation: Remove English ivy and blackberry. Plant mid story canopy and forest edge species along forest edge near freeway to help retain interior forest health. Monitor trees for continued decline and remove if they become a high risk.

15



Photo 15. Forest site off lid. This mature forest adjacent to the freeway is older than those on the freeway lid and along the wall edges. Similar health and invasive species issues impact this area.

Map 8 Notes



12. Forest Setting off lid.

Existing: Black cottonwood, Red alder, Pacific Madrone, *Arbutus menziesii*, Deodar cedar, *Cedrus deodara*, western red cedar, Douglas fir. This area is adjacent to Site 11, but located within the construction impact area for the freeway. Forest is more open with greater number of edge species and deciduous trees. Soils are compacted near road access area. Many trees were not planted. This forest area is in poor condition with many dead and dying trees.

Recommendation: Invasive species removal and conifer planting is recommended in areas of healthy soil. Some impacted areas along the road edge should have mechanical soil decompaction and be renovated into a landscape edge.



13. Bridge Planting Edge.

Existing: Austrian pine, Green ash, cedar, Douglas fir, flowering pear. On the overpasses, Pines and ash trees are planted in cement boxes. Soil in many boxes has decreased to half the original volume. Some trees show signs of drought stress potentially caused by irrigation issues, soil temperature extremes, or by low soil volume. Some trees have outgrown the boxes and are leaning. In many areas the tree boxes are set in unusual patterns that make maintenance difficult.

Recommendation: Remove all dead and dying trees. place boxes in easy maintenance pattern (for mowing or ground cover weeding). Connect soils in planter boxes to those surrounding. Refill boxes with soil that will last longer (less compost). Tree replacements should consider a less broad and more even distribution canopy tree for greater stability.

16



Photo 16. English ivy along bridge deck. Tree planter to the left has ample space for maintenance.

17



Photo 17. Trees in planter boxed require pruning. Some with uncorrected leans will require replacement.

Mercer Island Lid Tree and Landscape Assessment Red Line Map

Map 1 of 8

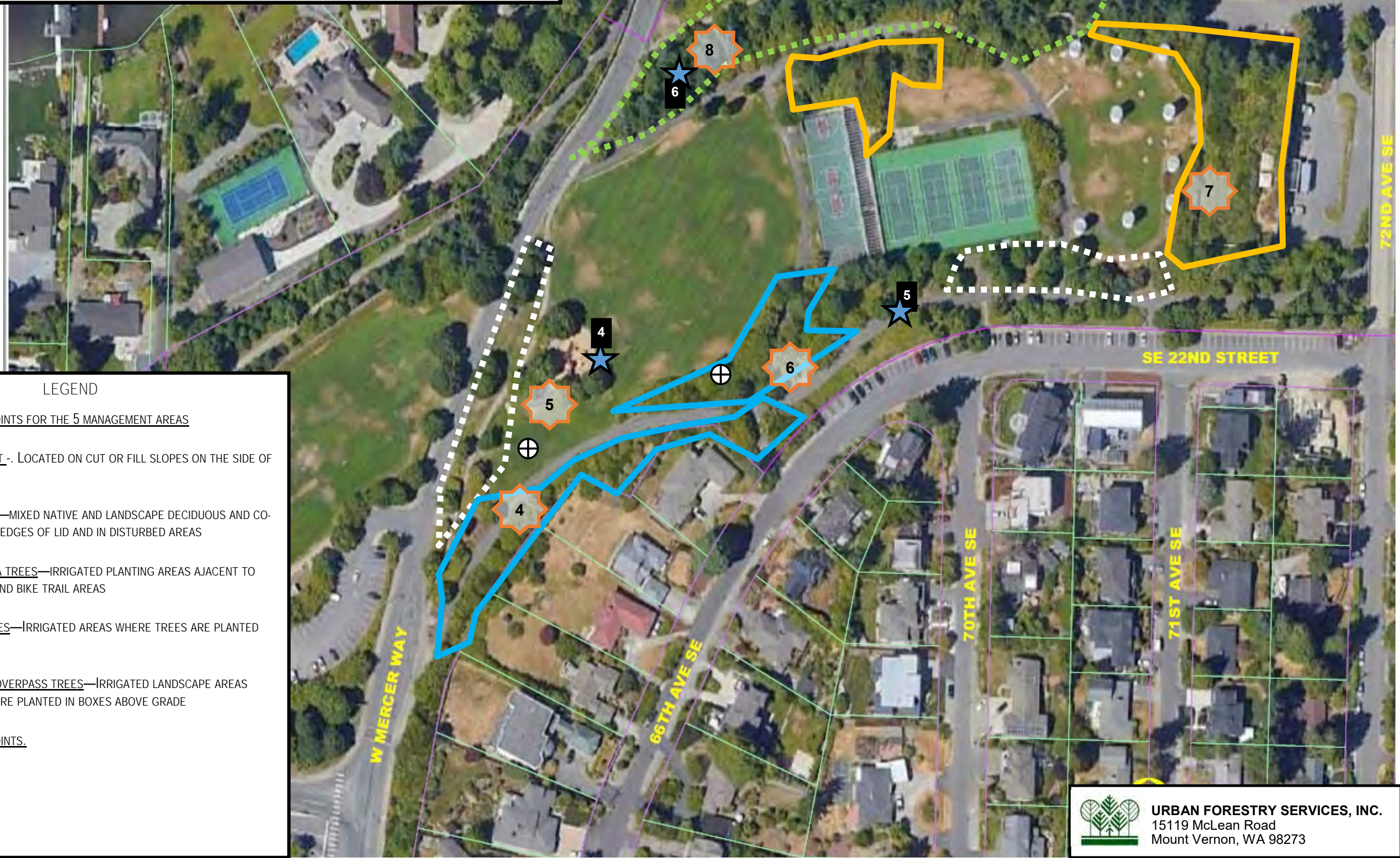
December 30, 2018



Mercer Island Lid Tree and Landscape Assessment Red Line Map






Map 2 of 8

December 30, 2018



LEGEND

OBSERVATION POINTS FOR THE 5 MANAGEMENT AREAS

-  CONIFER FOREST - LOCATED ON CUT OR FILL SLOPES ON THE SIDE OF THE LID
-  NATURAL AREAS—MIXED NATIVE AND LANDSCAPE DECIDUOUS AND CONIFER TREES ON EDGES OF LID AND IN DISTURBED AREAS
-  LANDSCAPE AREA TREES—IRRIGATED PLANTING AREAS AJACENT TO HIGH USE PARK AND BIKE TRAIL AREAS
-  LAWN AREA TREES—IRRIGATED AREAS WHERE TREES ARE PLANTED WITH GRASS.
-  STREET TREE/ OVERPASS TREES—IRRIGATED LANDSCAPE AREAS WHERE TREES ARE PLANTED IN BOXES ABOVE GRADE
-  SOIL SAMPLE POINTS.
-  PHOTO POINTS.
- 



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Mercer Island Lid Tree and Landscape Assessment Red Line Map

Map 3 of 8
December 30, 2018



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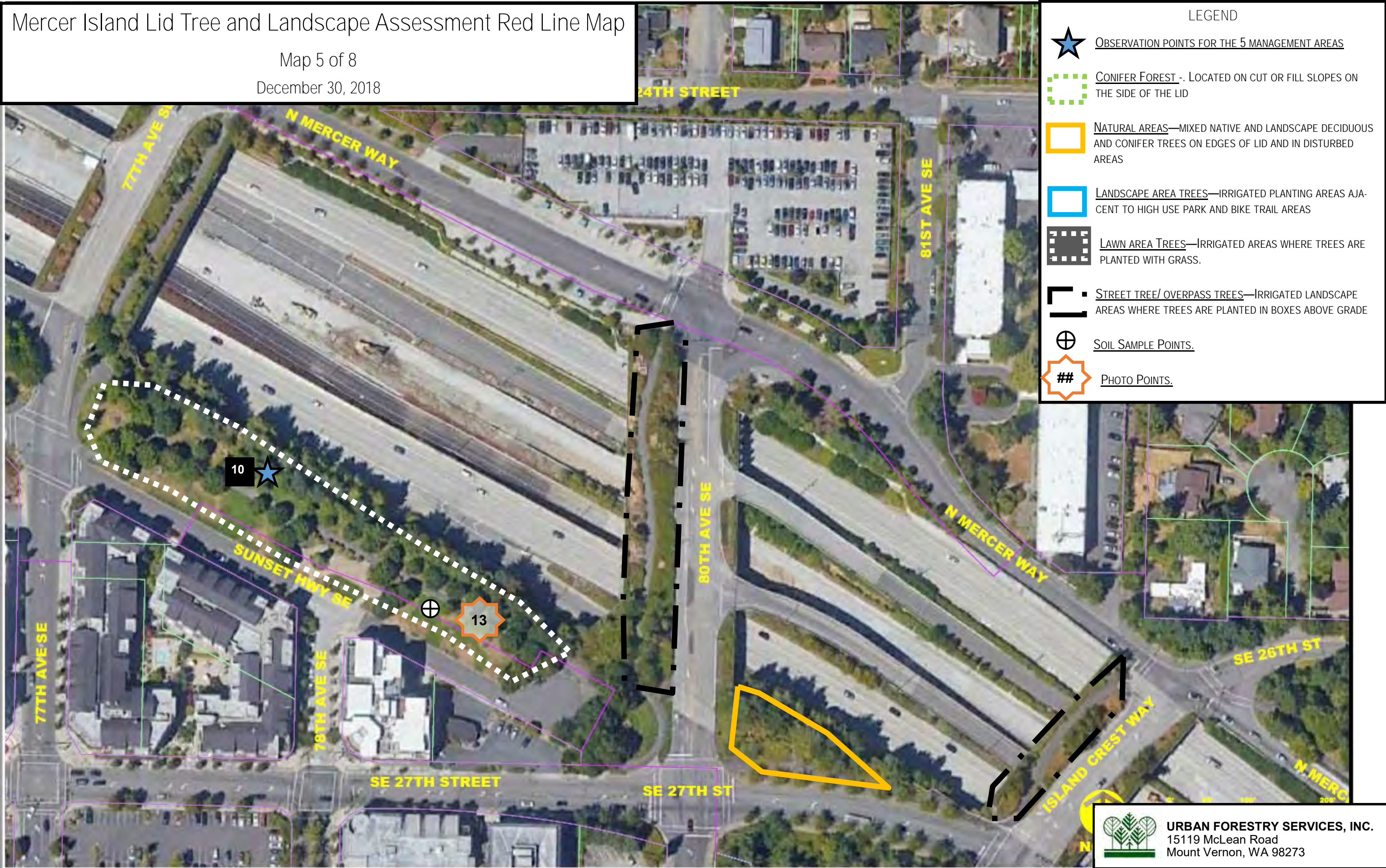
Mercer Island Lid Tree and Landscape Assessment Red Line Map

Map 4 of 8
December 30, 2018



Mercer Island Lid Tree and Landscape Assessment Red Line Map

Map 5 of 8
December 30, 2018

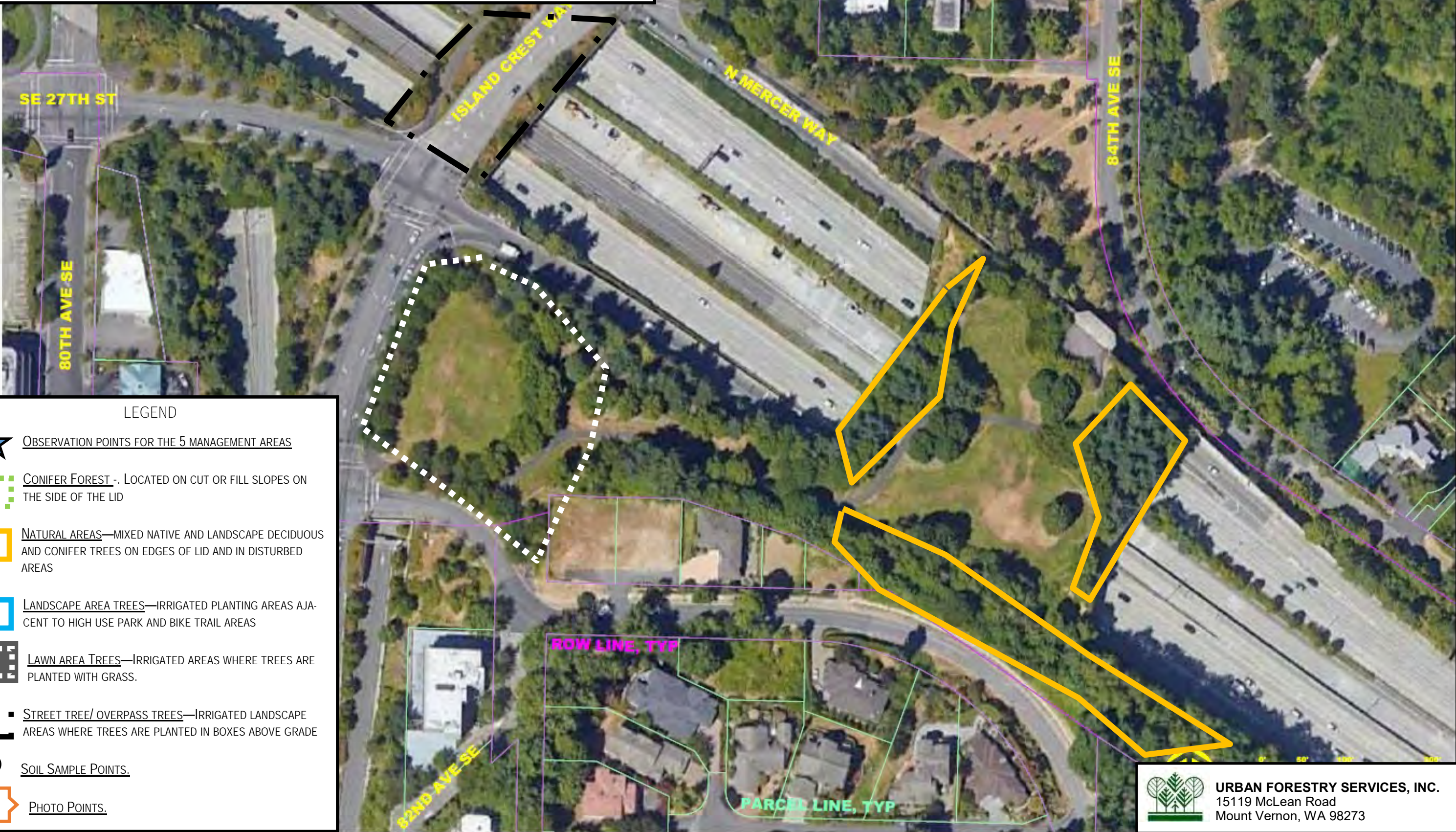


Mercer Island Lid Tree and Landscape Assessment Red Line Map

Map 6 of 8

December 30, 2018

6



LEGEND

-  OBSERVATION POINTS FOR THE 5 MANAGEMENT AREAS
-  CONIFER FOREST - LOCATED ON CUT OR FILL SLOPES ON THE SIDE OF THE LID
-  NATURAL AREAS—MIXED NATIVE AND LANDSCAPE DECIDUOUS AND CONIFER TREES ON EDGES OF LID AND IN DISTURBED AREAS
-  LANDSCAPE AREA TREES—IRRIGATED PLANTING AREAS ADJACENT TO HIGH USE PARK AND BIKE TRAIL AREAS
-  LAWN AREA TREES—IRRIGATED AREAS WHERE TREES ARE PLANTED WITH GRASS.
-  STREET TREE/ OVERPASS TREES—IRRIGATED LANDSCAPE AREAS WHERE TREES ARE PLANTED IN BOXES ABOVE GRADE
-  SOIL SAMPLE POINTS.
-  PHOTO POINTS.



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Mercer Island Lid Tree and Landscape Assessment Red Line Map

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December 30, 2018

Map 7 of 8

December 30, 2018

7



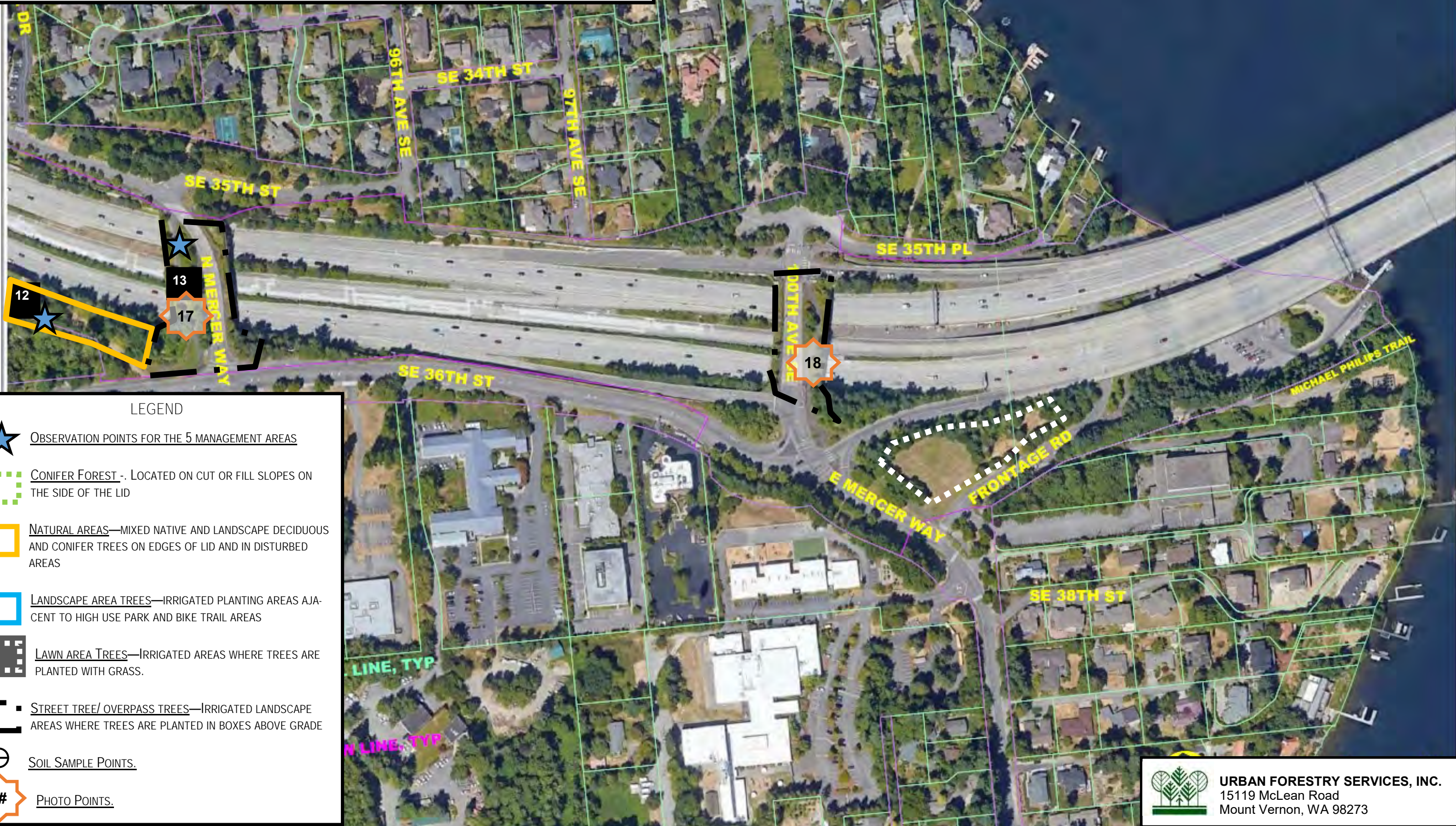
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Mercer Island Lid Tree and Landscape Assessment Red Line Map

Map 8 of 8

December 30, 2018

8



APPENDIX D

RECOMMENDED PLANT LIST

Appendix D: Recommended Plant List

October 8, 2019

Type	Species	Common name
Trees	<i>Acer circinatum</i> <i>Acer griseum</i> <i>Alnus rubra</i> <i>Amelanchier alnifolia</i> <i>Arbutus unedo</i> <i>Cercis spp.</i> <i>Clerodendrum trichotomum</i> <i>Cornus mas</i> <i>Cotinus coggygria</i> <i>Cotinus obovatus</i> <i>Ginkgo biloba</i> <i>Gleditsia triacanthos</i> <i>Gymnocladus dioica</i> <i>Juniperus spp.</i> <i>Koelreuteria paniculate</i> <i>Laerstroemia x fauriei</i> <i>Laurus nobilis</i> <i>Metasequoia glyptostroboides</i> <i>Parrotia persica</i> <i>Picea engelmannii</i> <i>Pinus contorta</i> <i>Pinus strobus</i> <i>Pseudotsuga menziesii</i> <i>Sorbus spp.</i> <i>Styphnolobium japonicum</i> <i>Quercus spp.</i>	Vine maple Paper bark Maple Red alder Saskatoon serviceberry Strawberry tree Redbud Harlequin glorybower Cornelian cherry Smoketree American smoketree Maidenhair tree Honey locust Kentucky coffee tree Juniper Golden rain tree Crepe myrtle Sweet bay Dawn redwood Persian ironwood Engelmann spruce Shore pine White pine Douglas fir Mountain ash Japanese pagoda tree Oak tree
Shrubs	<i>Arbutus unedo</i> <i>Abelia spp.</i> <i>Berberis spp.</i> <i>Buxus spp.</i> <i>Calluna vulgaris</i> <i>Caryopteris spp.</i> <i>Ceanothus</i> <i>Choisya ternata</i> <i>Cistus spp.</i>	Strawberry tree Abelia Barberry Boxwood Heather Blue mist shrub California lilac Mexican orange Rockrose

	<p> <i>Cotoneaster spp.</i> <i>Elaeagnus spp.</i> <i>Escallonia spp.</i> <i>Euonymus japonicus</i> <i>Fuchsia magellanica</i> <i>Garrya elliptica</i> <i>Gaultheria shallon</i> <i>Hebe spp.</i> <i>Holodiscus discolor</i> <i>Hydrangea quercifolia</i> <i>Juniperus spp.</i> <i>Kerria japonica</i> <i>Mahonia spp.</i> <i>Oemleria cerasiformis</i> <i>Philadelphus spp.</i> <i>Pittosporum spp.</i> <i>Potentilla spp.</i> <i>Rhododendron spp.</i> <i>Rhus spp.</i> <i>Ribes sanguineum</i> <i>Spiraea spp.</i> <i>Symphoricarpos spp.</i> <i>Vaccinium ovatum</i> <i>Viburnum tinus</i> <i>Viburnum opulus var. americanum</i> </p>	<p> Cotoneaster Silverberry Redclaws Japanese spindletree Hardy fuschia Silk tassel bush Salal Hebe Oceanspray Oakleaf hydrangea Juniper Japanese kerria Oregon grape Indian plum Mock orange Cheesewood Cinquefoil Rhododendron Sumac Red flowering currant Meadowsweet Snowberry Evergreen huckleberry Laurustinus American cranberrybush </p>
Perennials	<p> <i>Achillea millefolium</i> <i>Armeria maritima</i> <i>Artemisia spp.</i> <i>Aster spp.</i> <i>Bergenia spp.</i> <i>Echinops</i> <i>Euphorbia spp.</i> <i>Gaura spp.</i> <i>Geranium spp.</i> <i>Helianthemum spp.</i> <i>Hemerocallis spp.</i> <i>Lavandula spp.</i> <i>Perovskia atriplicifolia</i> <i>Rudbeckia</i> <i>Salvia spp.</i> <i>Teucrium chamaedrys</i> <i>Kniphofia spp.</i> </p>	<p> Yarrow Sea pink Wormwood Aster Pigsqueak Globe thistle Spurge Beeblossom Cranesbill Sunrose Daylily Lavender Russian sage Coneflower Sage Wall germander Red hot poker </p>

Groundcover	<i>Arctostaphylos uva-ursi</i> <i>Ceratostigma plumbaginoides</i> <i>Cornus alba</i> <i>Cornus sericea</i> <i>Corylus cornuta</i> <i>Iberis</i> spp. <i>Pachysandra terminalis</i> <i>Polygonum affine</i> <i>Sedum</i> spp. <i>Senecio</i> spp. <i>Zauschneria</i> spp.	Kinnikinnick Blue leadwood White dogwood Red osier dogwood Beaked hazelnut Candytuft Japanese spurge <i>Persicaria affinis</i> Stonecrop Ragwort California fuschia
Grasses	<i>Helictotrichon sempervirens</i> <i>Luzula</i> spp. <i>Miscanthus</i> spp. <i>Nassella tenuissima</i> <i>Phormium</i> spp.	Blue oat grass Luzula Silvergrass Mexican feather grass New Zealand flax
Vines	<i>Clematis montana</i> <i>Wisteria</i> spp.	Anemone clematis Wisteria

APPENDIX E

SOIL TEST RESULTS & LOCATIONS



Soil Sample 2A

Soil Sample 2B

Soil Sample 7

Soil Sample 4

Soil Sample 3

Soil Sample 2

Soil Sample 1

Soil Sample 5

Soil Sample 6



NORTH



SCALE

PARCEL LINE, TYP

SE 22ND STREET

Soil Sample 7

Soil Sample 1

ROW LINE, TYP

I-90

W MERCER WAY

SE 24TH STREET

60TH AVE SE

61ST AVE SE

62ND AVE SE

63RD AVE SE

64TH AVE SE



NORTH



SCALE



PARCEL LINE, TYP

ROW LINE, TYP

2

Soil Sample 2B

Soil Sample 2

Soil Sample 3

Soil Sample 2A

Soil Sample 1

W MERCER WAY

66TH AVE SE

70TH AVE SE

71ST AVE SE

SE 22ND STREET

72ND AVE SE



NORTH



SCALE

Soil Sample 3

Soil Sample 4

72ND AVE SE

N MERCER WAY

76TH AVE SE

SE 22ND STREET

ROW LINE, TYP

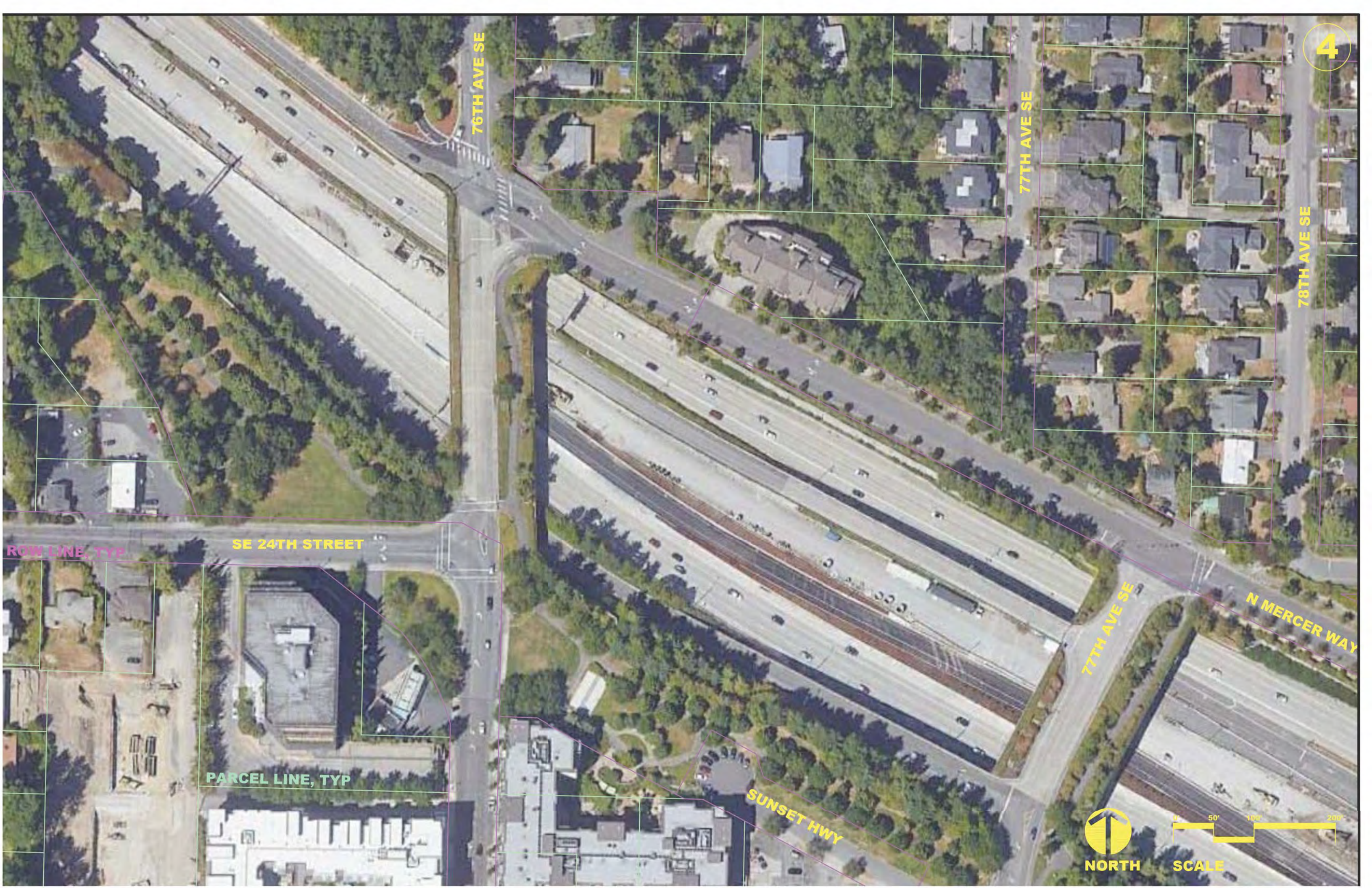
71ST AVE SE

PARCEL LINE, TYP

74TH AVE SE

76TH AVE SE





76TH AVE SE

77TH AVE SE

78TH AVE SE

SE 24TH STREET

SUNSET HWY

N MERCER WAY

ROW LINE, TYP

PARCEL LINE, TYP

4



NORTH

SCALE

5

SE 24TH STREET

ROW LINE, TYP

PARCEL LINE, TYP

81ST AVE SE

N MERCER WAY

SE 26TH ST

N MERCER

ISLAND CREST WAY

SE 27TH ST

SE 27TH STREET

78TH AVE SE

SUNSET HWY SE

80TH AVE SE

77TH AVE SE

77TH AVE SE

Soil Sample 5



NORTH



SCALE



SE 27TH ST

SE 26TH ST

ISLAND CREST WAY

N MERCER WAY

84TH AVE SE

80TH AVE SE

SE 28TH ST

ISLAND CREST WAY

82ND AVE SE

ROW LINE, TYP

PARCEL LINE, TYP





NORTH



SCALE



Soil Sample 6





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SOILTEST FARM CONSULTANTS - 11

2925 DRIGGS DR

Moses Lake , WA 98837

Laboratory #: S18-18583

Date Received: 9/24/2018

Grower: JIM HOWARD

Sampled By:

Field: 1

Customer Account #:

Customer Sample ID:

Soil Test Results				Customer Sample ID:																							
Phosphorus	Bray	mg/kg	66	pH 1:1		5.6	CaCl2 pH 4.7																				
Potassium	NH4OAc	mg/kg	69	E.C. 1:1	m.mhos/cm	0.04																					
Boron	DTPA	mg/kg	0.18	Est Sat Paste E.C.	m.mhos/cm	0.10																					
Zinc	DTPA	mg/kg	1.3	Effervescence																							
Manganese	DTPA	mg/kg	2.3				<u>Lbs/Acre</u>																				
Copper	DTPA	mg/kg	0.9	Ammonium - N	mg/kg	1.1	3																				
Iron	DTPA	mg/kg	84	Organic Matter W.B.	%	2.0	ENR: 39																				
Calcium	NH4OAc	meq/100g	3.1	<table><tr><td>Depth</td><td colspan="2">Nitrate-N</td><td>Sulfate-S</td><td>Moisture</td></tr><tr><td>inches</td><td>mg/kg</td><td>lbs/acre</td><td>mg/kg</td><td>Inches</td></tr><tr><td>0 - 12</td><td>2.5</td><td>8</td><td>5</td><td></td></tr><tr><td>Totals</td><td>2.5</td><td>8</td><td>5</td><td></td></tr></table>				Depth	Nitrate-N		Sulfate-S	Moisture	inches	mg/kg	lbs/acre	mg/kg	Inches	0 - 12	2.5	8	5		Totals	2.5	8	5	
Depth	Nitrate-N		Sulfate-S	Moisture																							
inches	mg/kg	lbs/acre	mg/kg	Inches																							
0 - 12	2.5	8	5																								
Totals	2.5	8	5																								
Magnesium	NH4OAc	meq/100g	1.4	Sum of Tested N: 50 lbs/acre N																							
Sodium	NH4OAc	meq/100g	0.06																								
Lime Req		Tons/Acre	0.0																								
Buffer pH	SMP		6.8																								
Cation Exchange	CEC	meq/100g	5.8																								
Total Bases	NH4OAc	meq/100g	4.7																								
Base Saturation	NH4OAc	%	81.2																								
ESP	ESP	%	1.0																								

Other Tests:

Texture: 89.0 % Sand, 2.0 % Clay, 9.0 % Silt

Cation % of CEC: Ca = 53.9 Mg = 23.3 Na = 1 K = 3

USDA TEXTURE - SAND

Interpretation Guide

Fertilizer recommendations for

of NATIVE PLANTING after

			Low	Medium	High			
Nitrogen	50	lbs/acre				40 lbs/acre of Nitrogen		
Phosphorus	66	mg/kg				0 lbs/acre of P2O5		
Potassium	69	mg/kg				55 lbs/acre of K2O		
Sulfur	5	mg/kg				20 lbs/acre of Sulfur		
Boron	0.18	mg/kg				1 lbs/acre of Boron		
Zinc	1.3	mg/kg				0 lbs/acre of Zinc		
Manganese	2.3	mg/kg				0 lbs/acre of Mn		

We make every effort to provide an accurate analysis of your sample. For reasonable cause we will repeat tests, but because of factors beyond our control in sampling procedures and the inherent variability of soil, our liability is limited to the price of the tests. Recommendations are to be used as general guides and should be modified for specific field conditions and situations. Note: "u" indicates that the element was analyzed for but not detected

This is your Invoice #: S18-18583

Account # 101100

Reviewed by: KEB

List Cost: \$78.00



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SOILTEST FARM CONSULTANTS - 11

2925 DRIGGS DR

Moses Lake , WA 98837

Laboratory #: S18-18584

Date Received: 9/24/2018

Grower: JIM HOWARD

Sampled By:

Field: 2

Customer Account #:

Customer Sample ID:

Soil Test Results

Phosphorus	Bray	mg/kg	11	pH 1:1	6.0	CaCl2 pH 5.3
Potassium	NH4OAc	mg/kg	61	E.C. 1:1	m.mhos/cm	0.11
Boron	DTPA	mg/kg	0.33	Est Sat Paste E.C.	m.mhos/cm	0.29
Zinc	DTPA	mg/kg	2.1	Effervescence		
Manganese	DTPA	mg/kg	1.5			<u>Lbs/Acre</u>
Copper	DTPA	mg/kg	1.7	Ammonium - N	mg/kg	1.9
Iron	DTPA	mg/kg	142	Organic Matter W.B.	%	2.6
Calcium	NH4OAc	meq/100g	4.1			ENR: 51
Magnesium	NH4OAc	meq/100g	1.1	Depth	Nitrate-N	Sulfate-S
Sodium	NH4OAc	meq/100g	0.07	inches	mg/kg lbs/acre	mg/kg
Lime Req		Tons/Acre	0.0	0 - 12	8.0	26
Buffer pH	SMP		6.9	Totals	8.0	26
Cation Exchange	CEC	meq/100g	8.4		11	
Total Bases	NH4OAc	meq/100g	5.5	Sum of Tested N:	83	lbs/acre N
Base Saturation	NH4OAc	%	65.0			
ESP	ESP	%	0.8			

Other Tests:

Texture: 88.0 % Sand, 2.0 % Clay, 10.0 % Silt

Cation % of CEC: Ca = 49 Mg = 13.3 Na = 0.8 K = 1.9

USDA TEXTURE - SAND

Interpretation Guide

Fertilizer recommendations for

of NATIVE PLANTING after

Low Medium High

Nitrogen	83	lbs/acre		0 lbs/acre of Nitrogen
Phosphorus	11	mg/kg		65 lbs/acre of P2O5
Potassium	61	mg/kg		65 lbs/acre of K2O
Sulfur	11	mg/kg		0 lbs/acre of Sulfur
Boron	0.33	mg/kg		0.5 lbs/acre of Boron
Zinc	2.1	mg/kg		0 lbs/acre of Zinc
Manganese	1.5	mg/kg		0 lbs/acre of Mn

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This is your Invoice #: S18-18584

Account # 101100

Reviewed by: KEB

List Cost: \$78.00



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SOILTEST FARM CONSULTANTS - 11

2925 DRIGGS DR

Moses Lake , WA 98837

Laboratory #: S18-18585

Date Received: 9/24/2018

Grower: JIM HOWARD

Sampled By:

Field: 3

Customer Account #:

Customer Sample ID:

Soil Test Results

Phosphorus	Bray	mg/kg	47	pH 1:1	5.3	CaCl2 pH 4.9
Potassium	NH4OAc	mg/kg	150	E.C. 1:1	m.mhos/cm	0.10
Boron	DTPA	mg/kg	0.17	Est Sat Paste E.C.	m.mhos/cm	0.26
Zinc	DTPA	mg/kg	1.7	Effervescence		
Manganese	DTPA	mg/kg	3.3			<u>Lbs/Acre</u>
Copper	DTPA	mg/kg	1.0	Ammonium - N	mg/kg	1.0
Iron	DTPA	mg/kg	80	Organic Matter W.B.	%	1.3
Calcium	NH4OAc	meq/100g	2.7			ENR: 26
Magnesium	NH4OAc	meq/100g	0.9	Depth	Nitrate-N	Sulfate-S
Sodium	NH4OAc	meq/100g	0.05	inches	mg/kg lbs/acre	mg/kg
Lime Req		Tons/Acre	0.0	0 - 12	8.4	27
Buffer pH	SMP		6.8	Totals	8.4	27
Cation Exchange	CEC	meq/100g	5.5	Sum of Tested N:	56	lbs/acre N
Total Bases	NH4OAc	meq/100g	4.0			
Base Saturation	NH4OAc	%	73.3			
ESP	ESP	%	0.9			

Other Tests:

Texture: 88.0 % Sand, 2.0 % Clay, 10.0 % Silt

Cation % of CEC: Ca = 49.2 Mg = 16.2 Na = 0.9 K = 7

USDA TEXTURE - SAND

Interpretation Guide

Fertilizer recommendations for

of NATIVE PLANTING after

Low Medium High

Nitrogen	56	lbs/acre		35 lbs/acre of Nitrogen
Phosphorus	47	mg/kg		15 lbs/acre of P2O5
Potassium	150	mg/kg		0 lbs/acre of K2O
Sulfur	6	mg/kg		15 lbs/acre of Sulfur
Boron	0.17	mg/kg		1 lbs/acre of Boron
Zinc	1.7	mg/kg		0 lbs/acre of Zinc
Manganese	3.3	mg/kg		0 lbs/acre of Mn

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This is your Invoice #: S18-18585

Account # 101100

Reviewed by: KEB

List Cost: \$78.00



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SOILTEST FARM CONSULTANTS - 11

2925 DRIGGS DR

Moses Lake , WA 98837

Laboratory #: S18-18586

Date Received: 9/24/2018

Grower: JIM HOWARD

Sampled By:

Field: 4

Customer Account #:

Customer Sample ID:

Soil Test Results

Phosphorus	Bray	mg/kg	19	pH 1:1	6.3	CaCl2 pH 5.3
Potassium	NH4OAc	mg/kg	45	E.C. 1:1	m.mhos/cm	0.13
Boron	DTPA	mg/kg	0.08	Est Sat Paste E.C.	m.mhos/cm	0.34
Zinc	DTPA	mg/kg	0.3	Effervescence		
Manganese	DTPA	mg/kg	1.2			<u>Lbs/Acre</u>
Copper	DTPA	mg/kg	0.4	Ammonium - N	mg/kg	0.7
Iron	DTPA	mg/kg	31	Organic Matter W.B.	%	0.8
Calcium	NH4OAc	meq/100g	3.3			ENR: 16
Magnesium	NH4OAc	meq/100g	1.4	Depth	Nitrate-N	Sulfate-S
Sodium	NH4OAc	meq/100g	0.06	inches	mg/kg lbs/acre	mg/kg
Lime Req		Tons/Acre	0.0	0 - 12	4.1	13
Buffer pH	SMP		7.2	Totals	4.1	13
Cation Exchange	CEC	meq/100g	4.8	Sum of Tested N:	31	lbs/acre N
Total Bases	NH4OAc	meq/100g	4.8			
Base Saturation	NH4OAc	%	100.7			
ESP	ESP	%	1.2			

Other Tests:

Texture: 93.0 % Sand, 1.0 % Clay, 6.0 % Silt

Cation % of CEC: Ca = 68.6 Mg = 28.5 Na = 1.2 K = 2.4

USDA TEXTURE - SAND

Interpretation Guide

Fertilizer recommendations for

of NATIVE PLANTING after

Low Medium High

Nitrogen	31	lbs/acre		55 lbs/acre of Nitrogen
Phosphorus	19	mg/kg		60 lbs/acre of P2O5
Potassium	45	mg/kg		75 lbs/acre of K2O
Sulfur	4	mg/kg		20 lbs/acre of Sulfur
Boron	0.08	mg/kg		1 lbs/acre of Boron
Zinc	0.3	mg/kg		4.5 lbs/acre of Zinc
Manganese	1.2	mg/kg		0 lbs/acre of Mn

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This is your Invoice #: S18-18586

Account # 101100

Reviewed by: KEB

List Cost: \$78.00



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SOILTEST FARM CONSULTANTS - 11

2925 DRIGGS DR

Moses Lake , WA 98837

Laboratory #: S18-18587

Date Received: 9/24/2018

Grower: JIM HOWARD

Sampled By:

Field: 5

Customer Account #:

Customer Sample ID:

Soil Test Results

Phosphorus	Bray	mg/kg	9	pH 1:1	5.4	CaCl2 pH 4.8
Potassium	NH4OAc	mg/kg	37	E.C. 1:1	m.mhos/cm	0.06
Boron	DTPA	mg/kg	0.21	Est Sat Paste E.C.	m.mhos/cm	0.16
Zinc	DTPA	mg/kg	2.1	Effervescence		
Manganese	DTPA	mg/kg	2.1			<u>Lbs/Acre</u>
Copper	DTPA	mg/kg	0.4	Ammonium - N	mg/kg	0.9
Iron	DTPA	mg/kg	101	Organic Matter W.B.	%	1.6
Calcium	NH4OAc	meq/100g	1.1			ENR: 32
Magnesium	NH4OAc	meq/100g	0.4	Depth	Nitrate-N	Sulfate-S
Sodium	NH4OAc	meq/100g	0.06	inches	mg/kg lbs/acre	mg/kg
Lime Req		Tons/Acre	0.0	0 - 12	2.7	9
Buffer pH	SMP		7.1	Totals	2.7	9
Cation Exchange	CEC	meq/100g	4.2	Sum of Tested N:	44	lbs/acre N
Total Bases	NH4OAc	meq/100g	1.7			
Base Saturation	NH4OAc	%	40.6			
ESP	ESP	%	1.4			

Other Tests:

Texture: 93.0 % Sand, 2.0 % Clay, 5.0 % Silt

Cation % of CEC: Ca = 26.4 Mg = 10.5 Na = 1.4 K = 2.2

USDA TEXTURE - SAND

Interpretation Guide

Fertilizer recommendations for

of TURF after

Low Medium High

Nitrogen	44	lbs/acre		80 lbs/acre of Nitrogen
Phosphorus	9	mg/kg		100 lbs/acre of P2O5
Potassium	37	mg/kg		115 lbs/acre of K2O
Sulfur	5	mg/kg		25 lbs/acre of Sulfur
Boron	0.21	mg/kg		1 lbs/acre of Boron
Zinc	2.1	mg/kg		0 lbs/acre of Zinc
Manganese	2.1	mg/kg		0 lbs/acre of Mn

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This is your Invoice #: S18-18587

Account # 101100

Reviewed by: KEB

List Cost: \$78.00



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SOILTEST FARM CONSULTANTS - 11

2925 DRIGGS DR

Moses Lake , WA 98837

Laboratory #: S18-18588

Date Received: 9/24/2018

Grower: JIM HOWARD

Sampled By:

Field: 6

Customer Account #:

Customer Sample ID:

Soil Test Results

Phosphorus	Bray	mg/kg	12
Potassium	NH4OAc	mg/kg	73
Boron	DTPA	mg/kg	0.11
Zinc	DTPA	mg/kg	1.0
Manganese	DTPA	mg/kg	1.5
Copper	DTPA	mg/kg	0.6
Iron	DTPA	mg/kg	52
Calcium	NH4OAc	meq/100g	2.9
Magnesium	NH4OAc	meq/100g	1.6
Sodium	NH4OAc	meq/100g	0.07
Lime Req		Tons/Acre	0.0
Buffer pH	SMP		7.1
Cation Exchange	CEC	meq/100g	5.7
Total Bases	NH4OAc	meq/100g	4.7
Base Saturation	NH4OAc	%	83.4
ESP	ESP	%	1.2

pH 1:1 6.0 CaCl2 pH 5.1

E.C. 1:1 m.mhos/cm 0.04

Est Sat Paste E.C. m.mhos/cm 0.10

Effervescence

Lbs/Acre

Ammonium - N mg/kg 1.6 5

Organic Matter W.B. % 1.6 ENR: 32

Depth	Nitrate-N	Sulfate-S	Moisture
inches	mg/kg lbs/acre	mg/kg	Inches
0 - 12	1.2 4	5	
Totals	1.2 4	5	
Sum of Tested N: 41 lbs/acre N			

Other Tests:

Texture: 90.0 % Sand, 2.0 % Clay, 8.0 % Silt

Cation % of CEC: Ca = 50.5 Mg = 28.4 Na = 1.2 K = 3.3

USDA TEXTURE - SAND

Interpretation Guide

Fertilizer recommendations for

of NATIVE PLANTING after

Low Medium High

Nitrogen	41	lbs/acre		50 lbs/acre of Nitrogen
Phosphorus	12	mg/kg		65 lbs/acre of P2O5
Potassium	73	mg/kg		55 lbs/acre of K2O
Sulfur	5	mg/kg		20 lbs/acre of Sulfur
Boron	0.11	mg/kg		1 lbs/acre of Boron
Zinc	1.0	mg/kg		0 lbs/acre of Zinc
Manganese	1.5	mg/kg		0 lbs/acre of Mn

We make every effort to provide an accurate analysis of your sample. For reasonable cause we will repeat tests, but because of factors beyond our control in sampling procedures and the inherent variability of soil, our liability is limited to the price of the tests. Recommendations are to be used as general guides and should be modified for specific field conditions and situations. Note: "u" indicates that the element was analyzed for but not detected

This is your Invoice #: S18-18588

Account # 101100

Reviewed by: KEB

List Cost: \$78.00

Soil Sample #7

Anna Heckman
Urban Forestry Services
15119 McLean Rd.
Mt. Vernon, WA 98273

Lab.#9543

10-Jan-19

SUBJECT: SOIL SAMPLE FOR SIEVE ANALYSIS

SAMPLE IDENTIFICATION: Heckman #1 (Pit Run) - submitted 1/04/19

Results of Mechanical Analysis: Particle distribution report.

Sieve Series Analysis: 100% of material passed a 1 inch mesh; this material was then classified by particle size analysis as follows:
Note: This organic composition of this material was less than 1% on a dry wt. basis.

<u>MESH:</u>	<u>SIEVE SIZE</u>	<u>% PASSING</u>	<u>% Retained</u>	<u>CLASSIFICATION</u>
	1/2 INCH	69.86	30.14	Rock
	1/4 INCH	47.85	22.01	Gravel
#18	1.00 mm	23.71	24.14	Very coarse sand/fine gravel
#35	500 microns	12.31	11.40	Coarse sand
#60	250 microns	6.31	6.00	Medium sand
#140	100 microns	2.47	3.84	Fine sand
#270	50 microns	1.30	1.17	Silt
#500	25 microns		1.30	clays

Recovery on testing: 99.95% With all calculations being on a dry weight basis.

This particle distribution report was determined using U.S. Standard Sieve Series.

William F. Black, Agronomist

Anna Heckman
Urban Forestry Services
15119 McLean Rd.
Mt. Vernon, WA 98273

Lab.#9543

10-Jan-19

SUBJECT: SOIL SAMPLE FOR SIEVE ANALYSIS

SAMPLE IDENTIFICATION: Heckman # 2A/2B - submitted 1/04/19

Results of Mechanical Analysis: Particle distribution report.

Sieve Series Analysis: 100% of material passed a 1/2 inch mesh; this material was then classified by particle size analysis as follows:

Note: This material was mostly sandy silt with less than 2% organic matter on a dry wt. basis.

<u>MESH:</u>	<u>SIEVE SIZE</u>	<u>% PASSING</u>	<u>% Retained</u>	<u>CLASSIFICATION</u>
	1/4 INCH	97.61	2.39	Gravel
#18	1.00 mm	95.20	2.41	Very coarse sand/fine gravel
#35	500 microns	82.33	12.87	Coarse sand
#60	250 microns	33.73	48.60	Medium sand
#140	100 microns	4.76	28.97	Fine sand
#270	50 microns	1.25	3.51	Silt
#500	25 microns		1.25	clays

Recovery on testing: 99.92% With all calculations being on a dry weight basis.

This particle distribution report was determined using U.S. Standard Sieve Series.

William F. Black, Agronomist

APPENDIX F

BOLLARD STUDY

BOLLARD RECOMMENDATIONS MEMO

MERCER ISLAND I-90 TRAIL PROJECT

October 31, 2016

PURPOSE

The purpose of this memo is to document a study of the existing bollards currently located within the Mercer Island portion of the I-90 Trail, and provide recommendations for alterations to those bollards as needed. The study presented herein represents an applied analysis based on the bollard guidance concepts provided in the “Decision Guidelines for Bollards” technical memo.

INTRODUCTION

The I-90 Trail is a regional trail that was originally built by the Washington State Department of Transportation (WSDOT) with the support of multiple partners, including the City of Mercer Island. As it crosses the island, the trail generally parallels I-90, with portions of the trail following City streets, and some areas of the trail passing through several parks on the island. The trail is typically built as a smooth paved sidepath¹, with a width to accommodate different users and reduce user conflicts, though there are segments that exist on sidewalks as well.

At most street crossings and other access points to the trail, square wooden bollards were placed across the trail in order to control motorized vehicle access. These bollards are typically placed in groups of three, with one bollard on either edge of the paved trail and one in the middle, arranged perpendicularly across the trail, though some variations on this pattern do exist. Some of the original bollards have had reflective materials attached and/or have been painted white to increase visibility of the bollards.

¹ The terms “sidepath”, “shared use path”, and “sidewalk” are used in this memo to designate different forms that the I-90 Trail takes as it crosses Mercer Island. The term “sidewalk” is used in its commonly-recognizable form, identifying paved walkways immediately adjacent a roadway, while the term “sidepath” refers to a paved pathway whose alignment parallels a roadway but is physically separated from the roadway, either by barrier, lateral offset, or both. The term “shared use path” denotes any pathway that is formally designated for both wheeled and foot traffic, which can take the form of either a sidepath, a sidewalk, or a pathway that is independent of any roadway alignment. The term “trail” typically is used only for its generic meaning in this memo and does not indicate a specific physical form.

Since the time when the original I-90 Trail was constructed, the standard of practice and guidance related to bollard usage on trails has evolved. While bollards were typically installed as a matter of course during that time period, with little to no evaluative analysis involved, current practice is to limit the use of bollards to those locations where they serve an identifiable purpose.

The project team evaluated current published national and state bollard guidance, along with additional pertinent rules and best practice considerations, and developed guidance to govern the application and placement of bollards on the I-90 Trail across Mercer Island. That guidance was provided in a technical memo titled “Decision Guidelines for Bollards”, attached as Appendix A.

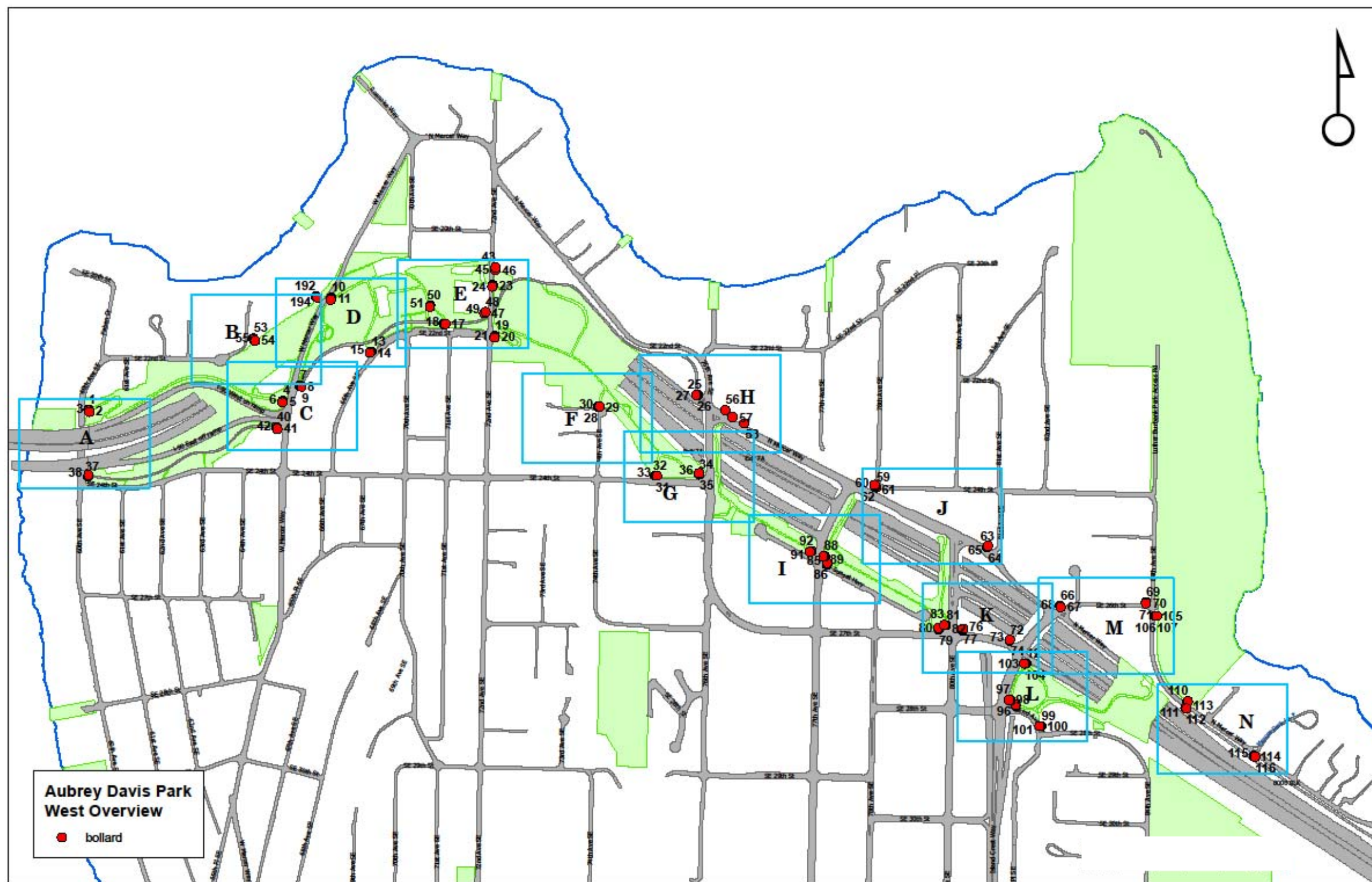
As discussed in the technical memo, the fundamental decision regarding the use of bollards is whether a bollard should or should not be placed at any given location. Based on current guidance and best practices, bollards should only be considered for use at locations where there is a demonstrable need for bollards to be employed. A demonstrable need would include a documented history of unauthorized intrusion at a given access point, or an identifiable characteristic of a particular location that could cause a driver to misinterpret a trail access point as a motor vehicle roadway.

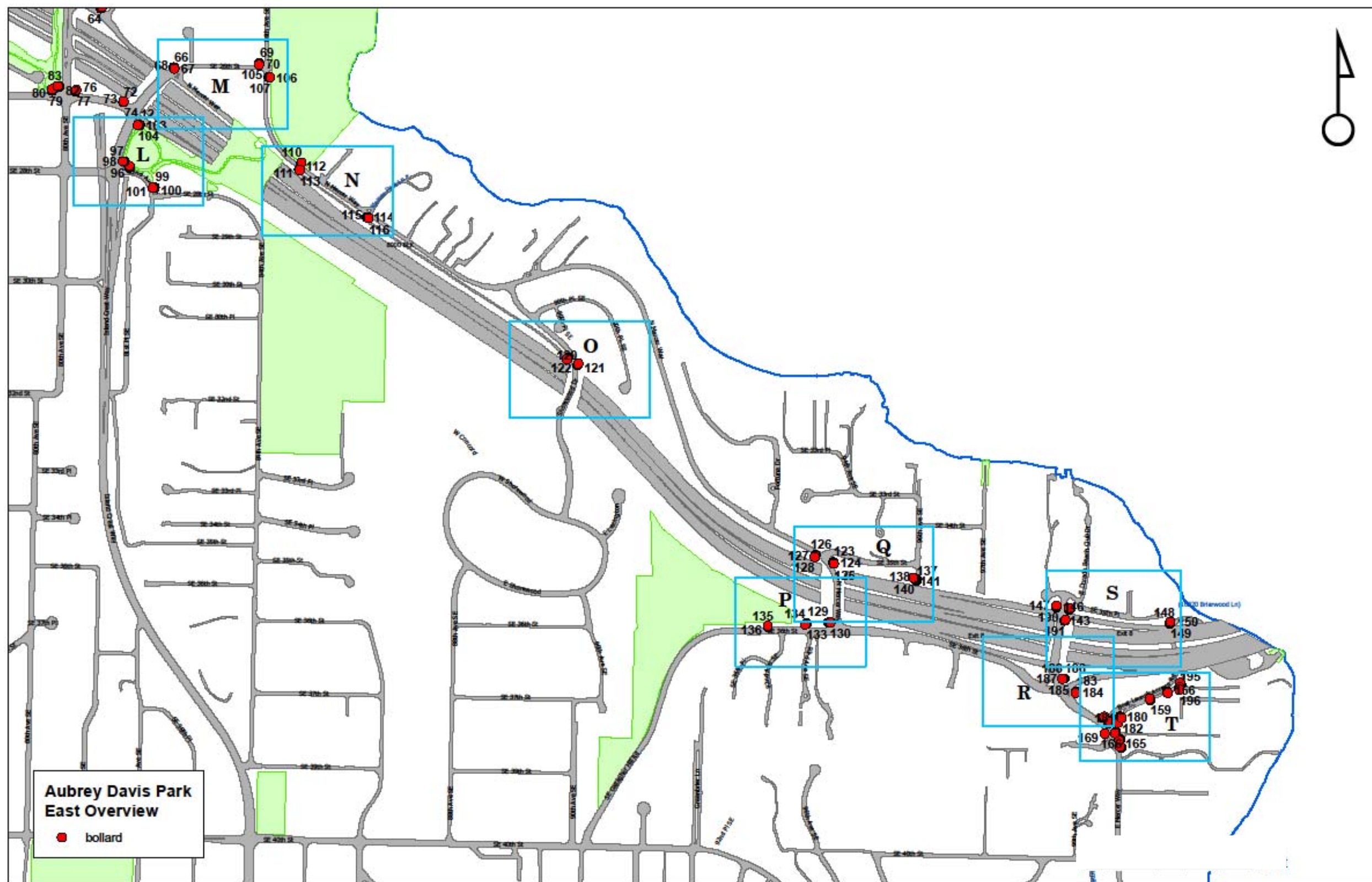
This memo presents an analysis of all bollards currently located along the I-90 corridor across Mercer Island. The analysis includes the results of a field review of each bollard and bollard group, as well as recommendations for treatment of each bollard based on applying the guidance from the “Decision Guidelines for Bollards” technical memo.

REVIEW OF EXISTING BOLLARDS

The project team performed a review of all bollards along the I-90 corridor across Mercer Island. The Mercer Island Parks Department has created a bollard inventory and atlas for all bollards located along the various trails and pathways that follow I-90 across Mercer Island. The City’s atlas is attached as Appendix B; an additional bollard group numbering system has also been added to the City’s atlas to assist in identifying the bollards.

Mercer Island’s bollard atlas was used as a basis for tracking the bollard review and subsequent recommendations in order to maintain consistency with the City’s current bollard tracking system. The bollard inventory map from the City’s atlas is shown on the next two pages (also shown in Appendix B).





BOLLARD USE: PRESENCE VERSUS ABSENCE

As mentioned above and in the “Decision Guidelines for Bollards” tech memo, the primary consideration regarding the application of bollards is whether or not bollards should be employed at any given location. Because bollards by definition represent an obstruction in the pathway, they are not recommended for routine use. Bollards should only be used where there is a demonstrated need to address motor vehicle intrusion.

At many bollard locations across Mercer Island, the presence of bollards does not completely eliminate the possibility that a determined driver could drive onto the trail. At several locations there are opportunities for motor vehicles to easily access the trail either at the location of the bollards themselves or within a few hundred feet of a trail crossing. There is no documented history of repeated intentional vehicular intrusion at any location along the I-90 trail on Mercer Island, so none of the existing bollards meets that warrant to indicate use. As a result of these factors, the evaluation of the existing bollards focused primarily on the potential for accidental vehicular intrusion at each location.

Such evaluation consisted of reviewing the surrounding physical characteristics of each bollard location to reasonably determine the probability that a motor vehicle driver might mistake the trail for a roadway, and whether other features at the location would provide sufficient preventative measures to deter a driver from accidentally driving onto the trail.

For bollard locations where the probability of misinterpreting the trail as a roadway was identified as being low, the recommendation is to remove the bollards in order to eliminate the obstructions to trail users. If these locations also already include physical features that clearly deter drivers from accidentally driving onto the trail, then no further action is recommended. These existing features include such things as the presence of a sidewalk between the end of the trail and the roadway, curbing that clearly demarcates the trail separation from the roadway, or other similar features. If these locations do not include such features, then the recommendation includes suggestions to include design features other than bollards.

EXISTING BOLLARD FEATURES

The team evaluated all 196 bollards identified by the City along the I-90 corridor, which are arranged in 66 bollard groups. The team evaluated each bollard by reviewing photographs and mapping information provided by the City of Mercer Island, and location imagery available via Google Street View. Bollards that required more detailed observation were reviewed by on-site field review.

All of the existing bollards except one are of the square-section wood post type, typically measuring 8 inches square (8 inches by 8 inches) and approximately 32 inches tall. The majority of bollards were placed in groups, with the vast majority of groups consisting of 3 bollards. There are also several groups of bollards that have either 2 or 4 bollards. The typical bollard spacing is generally around 5 feet, measured between the near inside faces of adjacent posts, though this spacing varies. In some locations bollards that previously existed have been removed prior to this study (e.g. previous bollards have been removed in the pathway adjacent both bollard 57 and bollard 58).

In many instances the center bollard in bollard groups is removable in order to provide maintenance vehicle access when needed. The removable bollards are frequently set into a receiving square sleeve inset into the pavement, and are held in place by a simple padlock hasp. In other locations removable bollards are held in place by other methods. In most cases there are no locks used, so many removable bollards are not locked in place. In most locations there are also no caps to cover the open receiving holes when these bollards are removed.

In most locations the center bollards, both removable and permanent, are set into a cast concrete footing approximately 2 feet in diameter if round (see photo), or approximately 2 feet square. The size and shape of these footings varies. Most bollards that are not in the center of a pathway are simply embedded into the soil or asphalt pavement, though some are also embedded in concrete footings. Those that appear to be embedded into the soil or pavement may also have concrete footings below ground.

In most locations there are no pavement markings accompanying the bollard installations. In some locations along the primary trail route there are white pavement stripes that lead into the center bollard of a bollard group. These stripes are single white stripes that lead into and terminate at the bollard.

In some locations along the primary trail route some bollards have had reflective materials added to them, and some bollards have been partially painted white.

Representative Removable Bollard on Mercer Island



Removable bollard (#60) in the center position of a group of bollards.

RECOMMENDATIONS FOR EXISTING BOLLARDS

As discussed above, bollards should only be used where there is a demonstrated need to address motor vehicle intrusion. Furthermore, as discussed in the “Decision Guidelines for Bollards” tech memo, bollards should never be used as a means to divert or slow path traffic. When it is not entirely clear whether to install a bollard at a location in question, it is better to err on the side of caution and not install a bollard.

Additionally, alternate methods of restricting motor vehicle access should be considered prior to any bollard use. Conventional alternate methods in lieu of bollards could include signage, landscaped medians, or targeted enforcement; however, other methods can be equally or more effective, which

might include special mountable curbing that can be easily crossed over by bicycle but provides a demarcation of a street/trail point of intersection, alternate pavement types (varying colors or textures), pavement markings, etc. to identify the beginning of a pathway.

In reviewing the existing bollards, the team found that at many locations the bollards' primary function is not strictly intrusion prevention, but is instead a treatment that indicates locations where the trail meets a roadway. The bollards may provide a visual cue to trail users to anticipate the roadway crossing. In some cases it appears that the bollards serve no specific purpose other than to perhaps maintain a consistent application of the bollard treatment to indicate the location or routing of the trail. This latter treatment appears in locations where the trail is part of the street sidewalk network, and in at least one location where the trail follows a maintenance access road for a short distance. At a number of locations bollards are placed at trail-to-trail intersections, well away from any motor vehicle access points.

For locations where the bollards' function is primarily to either demarcate the presence of a street or trail-to-trail intersection, or to assist trail users in identifying the trail routing, current state of the practice would suggest that the use of bollards is not a good method of performing either of those functions.

After completing the bollard review, the team found that at all locations where bollards are used within the paved trail corridor, there is either a very low possibility of accidental intrusion by cars, or there is an opportunity to use alternative methods of preventing intrusion other than by the use of bollards. The team found no locations within the paved trail corridor where bollards would be considered a necessity. There was one location where the bollards are not on the paved trail corridor and appear to have been placed to control access into an unpaved WSDOT maintenance access road (bollards 132 through 134).

The table on the following pages provides specific recommendations for each bollard and bollard group. As shown in the recommendation table, the team recommends removal of all bollards except for bollards 132, 133, and 134. In some locations the function of the removed bollards would potentially be replaced by alternate treatments such as pavement markings, additional signage, additional curbing, etc. However, in most cases the bollards can be removed with no further revisions needed other than to repair the pavement where the bollards were located.

For the few locations where alternate treatments are suggested, the team intended to address the two separate functions mentioned above, which were previously served by the bollards. The first function is to ensure that the connection point of a pathway would not accidentally be misinterpreted as a roadway connection by drivers passing along the connecting roadway. The second function is to ensure that users of the pathway (primarily cyclists) who are approaching the point of intersection are given warning that there is an intersection ahead. In each location where an alternative treatment was recommended, the intent was to address either one or the other of these two potential issues. All of the alternate treatments are intended to address both issues, but in general the "Alternate 2" treatment presents a stronger visual cue for addressing the first issue, while "Alternate 3" presents sufficient markings for addressing the second issue.

Representational figures of the potential alternate treatments are provided in Appendix C. Note that these figures are intended for discussion purposes only. Each location where an alternate treatment might be applied would require an individual design at a future time.

BOLL. NO.	BOLL. GROUP	ATLAS PAGE	RECOMMENDATION	REVIEW TYPE	NOTES
1	1001	A	Remove/replace with Alt. 2 treatment	Google Earth	Add optional lane edge stripe ("No Motor Vehicles" sign already present)
2	1001	A	Remove/replace with Alt. 2 treatment	Google Earth	Add optional lane edge stripe ("No Motor Vehicles" sign already present)
3	1001	A	Remove/replace with Alt. 2 treatment	Google Earth	Add optional lane edge stripe ("No Motor Vehicles" sign already present)
4	1002	C	Remove	Pictures and data from MI	At crosswalk
5	1002	C	Remove	Pictures and data from MI	At crosswalk
6	1002	C	Remove	Pictures and data from MI	At crosswalk
7	1003	C	Remove	Google Earth	Trail entry behind sidewalk
8	1003	C	Remove	Google Earth	Trail entry behind sidewalk
9	1003	C	Remove	Google Earth	Trail entry behind sidewalk
10	1004	D	Remove	Google Earth	Trail entry behind sidewalk
11	1004	D	Remove	Google Earth	Trail entry behind sidewalk
12	1004	D	Remove	Google Earth	Trail entry behind sidewalk
13	1005	D	Remove/replace with Alt. 3 treatment	Google Earth	No optional components necessary. Trail connects to back of sidewalk.
14	1005	D	Remove/replace with Alt. 3 treatment	Google Earth	No optional components necessary. Trail connects to back of sidewalk.
15	1005	D	Remove/replace with Alt. 3 treatment	Google Earth	No optional components necessary. Trail connects to back of sidewalk.
16	1006	E	Remove	Google Earth	Trail entry behind sidewalk
17	1006	E	Remove	Google Earth	Trail entry behind sidewalk
18	1006	E	Remove	Google Earth	Trail entry behind sidewalk
19	1007	E	Remove/replace with Alt. 2 treatment	Field visit	Add optional lane edge stripe & "No Motor Vehicles" sign
20	1007	E	Remove/replace with Alt. 2 treatment	Field visit	Add optional lane edge stripe & "No Motor Vehicles" sign
21	1007	E	Remove/replace with Alt. 2 treatment	Field visit	Add optional lane edge stripe & "No Motor Vehicles" sign
22	1008	E	Remove	Field visit	Access from parking lot, "No Motor Vehicles" sign already present
23	1008	E	Remove	Field visit	Access from parking lot, "No Motor Vehicles" sign already present
24	1008	E	Remove	Field visit	Access from parking lot, "No Motor Vehicles" sign already present
25	1009	H	Remove	Pictures and data from MI	At crosswalk
26	1009	H	Remove	Pictures and data from MI	At crosswalk
27	1009	H	Remove	Pictures and data from MI	At crosswalk
28	1010	F	Remove/replace with Alt. 3 treatment	Field visit	Add optional lane edge stripe (dead end street)
29	1010	F	Remove/replace with Alt. 3 treatment	Field visit	Add optional lane edge stripe (dead end street)
30	1010	F	Remove/replace with Alt. 3 treatment	Field visit	Add optional lane edge stripe (dead end street)
31	1011	G	Remove/replace with Alt. 3 treatment	Google Earth	No optional components necessary. Trail connects to back of sidewalk.
32	1011	G	Remove/replace with Alt. 3 treatment	Google Earth	No optional components necessary. Trail connects to back of sidewalk.
33	1011	G	Remove/replace with Alt. 3 treatment	Google Earth	No optional components necessary. Trail connects to back of sidewalk.
34	1012	G	Remove	Pictures and data from MI	At crosswalk
35	1012	G	Remove	Pictures and data from MI	At crosswalk
36	1012	G	Remove	Pictures and data from MI	At crosswalk
37	1013	A	Remove/replace with Alt. 3 treatment	Google Earth	Add optional lane edge stripe & "No Motor Vehicles" sign
38	1013	A	Remove/replace with Alt. 3 treatment	Google Earth	Add optional lane edge stripe & "No Motor Vehicles" sign
39	1013	A	Remove/replace with Alt. 3 treatment	Google Earth	Add optional lane edge stripe & "No Motor Vehicles" sign
40	1014	C	Remove	Pictures and data from MI	At crosswalk
41	1014	C	Remove	Pictures and data from MI	At crosswalk
42	1014	C	Remove	Pictures and data from MI	At crosswalk
43	1015	E	Remove/replace with Alt. 2 treatment	Field visit	Install at trail connection past driveway. Add optional lane edge stripe & "No Motor Vehicles" sign
44	1015	E	Remove/replace with Alt. 2 treatment	Field visit	Install at trail connection past driveway. Add optional lane edge stripe & "No Motor Vehicles" sign
45	1015	E	Remove/replace with Alt. 2 treatment	Field visit	Install at trail connection past driveway. Add optional lane edge stripe & "No Motor Vehicles" sign
46	1015	E	Remove/replace with Alt. 2 treatment	Field visit	Install at trail connection past driveway. Add optional lane edge stripe & "No Motor Vehicles" sign
47	1016	E	Remove/replace with Alt. 3 treatment	Field visit	Add optional lane edge stripe ("No Motor Vehicles" sign already present)
48	1016	E	Remove/replace with Alt. 3 treatment	Field visit	Add optional lane edge stripe ("No Motor Vehicles" sign already present)
49	1016	E	Remove/replace with Alt. 3 treatment	Field visit	Add optional lane edge stripe ("No Motor Vehicles" sign already present)
50	1017	E	Remove	Google Earth	Trail-to-trail connection
51	1017	E	Remove	Google Earth	Trail-to-trail connection

BOLL. NO.	BOLL. GROUP	ATLAS PAGE	RECOMMENDATION	REVIEW TYPE	NOTES
52	1017	E	Remove	Google Earth	Trail-to-trail connection
53	1018	B	Remove/replace with Alt. 2 treatment	Field visit	Add optional lane edge stripe & "No Motor Vehicles" sign
54	1018	B	Remove/replace with Alt. 2 treatment	Field visit	Add optional lane edge stripe & "No Motor Vehicles" sign
55	1018	B	Remove/replace with Alt. 2 treatment	Field visit	Add optional lane edge stripe & "No Motor Vehicles" sign
56	1019	H	Remove	Google Earth	Located along back edge of sidewalk, perform no identifiable function
57	1019	H	Remove	Google Earth	Located along back edge of sidewalk, perform no identifiable function
58	1019	H	Remove	Google Earth	Located along back edge of sidewalk, perform no identifiable function
59	1020	J	Remove/replace with alt. treatment	Field visit	Place standard lane edge stripe along edge of roadway through curve
60	1020	J	Remove/replace with alt. treatment	Field visit	Place standard lane edge stripe along edge of roadway through curve
61	1020	J	Remove/replace with alt. treatment	Field visit	Place standard lane edge stripe along edge of roadway through curve
62	1020	J	Remove/replace with alt. treatment	Field visit	Place standard lane edge stripe along edge of roadway through curve
63	1021	J	Remove	Pictures and data from MI	Bollards located within sidewalk, perform no identifiable function
64	1021	J	Remove	Pictures and data from MI	Bollards located within sidewalk, perform no identifiable function
65	1021	J	Remove	Pictures and data from MI	Bollards located within sidewalk, perform no identifiable function
66	1022	M	Remove	Field visit	Bollards located within sidewalk, perform no identifiable function
67	1022	M	Remove	Field visit	Bollards located within sidewalk, perform no identifiable function
68	1022	M	Remove	Field visit	Bollards located within sidewalk, perform no identifiable function
69	1023	M	Remove	Pictures and data from MI	Bollards located within sidewalk, perform no identifiable function
70	1023	M	Remove	Pictures and data from MI	Bollards located within sidewalk, perform no identifiable function
71	1023	M	Remove	Pictures and data from MI	Bollards located within sidewalk, perform no identifiable function
72	1024	K	Remove	Pictures and data from MI	Bollards located within sidewalk, perform no identifiable function
73	1024	K	Remove	Pictures and data from MI	Bollards located within sidewalk, perform no identifiable function
74	1024	K	Remove	Pictures and data from MI	Bollards located within sidewalk, perform no identifiable function
75	1025	K	Remove	Pictures and data from MI	At crosswalk
76	1025	K	Remove	Pictures and data from MI	At crosswalk
77	1025	K	Remove	Pictures and data from MI	At crosswalk
78	1026	K	Remove	Pictures and data from MI	At crosswalk
79	1026	K	Remove	Pictures and data from MI	At crosswalk
80	1026	K	Remove	Pictures and data from MI	At crosswalk
81	1027	K	Remove	Pictures and data from MI	At crosswalk
82	1027	K	Remove	Pictures and data from MI	At crosswalk
83	1027	K	Remove	Pictures and data from MI	At crosswalk
84	1028	I	Remove	Pictures and data from MI	At crosswalk
85	1028	I	Remove	Pictures and data from MI	At crosswalk
86	1028	I	Remove	Pictures and data from MI	At crosswalk
87	1029	I	Remove	Pictures and data from MI	At crosswalk
88	1029	I	Remove	Pictures and data from MI	At crosswalk
89	1029	I	Remove	Pictures and data from MI	At crosswalk
90	1030	I	Remove	Pictures and data from MI	At crosswalk
91	1030	I	Remove	Pictures and data from MI	At crosswalk
92	1030	I	Remove	Pictures and data from MI	At crosswalk
93	1031	L	Remove	Field visit	At crosswalk
94	1031	L	Remove	Field visit	At crosswalk
95	1031	L	Remove	Field visit	At crosswalk
96	1032	L	Remove	Field visit	At crosswalk
97	1032	L	Remove	Field visit	At crosswalk
98	1032	L	Remove	Field visit	At crosswalk
99	1033	L	Remove	Pictures and data from MI	Bollards located behind sidewalk
100	1033	L	Remove	Pictures and data from MI	Bollards located behind sidewalk
101	1033	L	Remove	Pictures and data from MI	Bollards located behind sidewalk
102	1034	L	Remove	Pictures and data from MI	At crosswalk

BOLL. NO.	BOLL. GROUP	ATLAS PAGE	RECOMMENDATION	REVIEW TYPE	NOTES
103	1034	L	Remove	Pictures and data from MI	At crosswalk
104	1034	L	Remove	Pictures and data from MI	At crosswalk
105	1035	M	Remove	Pictures and data from MI	At crosswalk
106	1035	M	Remove	Pictures and data from MI	At crosswalk
107	1035	M	Remove	Pictures and data from MI	At crosswalk
108	1036	N	Remove	Pictures and data from MI	At crosswalk
109	1036	N	Remove	Pictures and data from MI	At crosswalk
110	1036	N	Remove	Pictures and data from MI	At crosswalk
111	1037	N	Remove	Pictures and data from MI	At crosswalk
112	1037	N	Remove	Pictures and data from MI	At crosswalk
113	1037	N	Remove	Pictures and data from MI	At crosswalk
114	1038	N	Remove	Field visit	At crosswalk
115	1038	N	Remove	Field visit	At crosswalk
116	1038	N	Remove	Field visit	At crosswalk
117	1039	O	Remove/replace with Alt.: 3 treatment	Field visit	Add optional "No Motor Vehicles" sign
118	1039	O	Remove/replace with Alt.: 3 treatment	Field visit	Add optional "No Motor Vehicles" sign
119	1039	O	Remove/replace with Alt.: 3 treatment	Field visit	Add optional "No Motor Vehicles" sign
120	1040	O	Remove/replace with Alt.: 3 treatment	Field visit	No added optional components necessary ("No Motor Vehicles" sign already present)
121	1040	O	Remove/replace with Alt.: 3 treatment	Field visit	No added optional components necessary ("No Motor Vehicles" sign already present)
122	1040	O	Remove/replace with Alt.: 3 treatment	Field visit	No added optional components necessary ("No Motor Vehicles" sign already present)
123	1041	Q	Remove	Pictures and data from MI	At crosswalk
124	1041	Q	Remove	Pictures and data from MI	At crosswalk
125	1041	Q	Remove	Pictures and data from MI	At crosswalk
126	1042	Q	Remove	Field visit	Bollards located within sidewalk
127	1042	Q	Remove	Field visit	Bollards located within sidewalk
128	1042	Q	Remove	Field visit	Bollards located within sidewalk
129	1043	P	Remove	Field visit	At crosswalk
130	1043	P	Remove	Field visit	At crosswalk
131	1043	P	Remove	Field visit	At crosswalk
132	1044	P	Keep	Field visit	Bollards not located within paved trail, may have other purpose
133	1044	P	Keep	Field visit	Bollards not located within paved trail, may have other purpose
134	1044	P	Keep	Field visit	Bollards not located within paved trail, may have other purpose
135	1045	P	Remove	Field visit	Bollards located within sidewalk
136	1045	P	Remove	Field visit	Bollards located within sidewalk
137	1046	Q	Remove	Field visit	Trail-to-trail connection
138	1046	Q	Remove	Field visit	Trail-to-trail connection
139	1047	Q	Remove	Field visit	Trail connection from stub driveway
140	1047	Q	Remove	Field visit	Trail connection from stub driveway
141	1047	Q	Remove	Field visit	Trail connection from stub driveway
142	1048	S	Remove/replace with Alt.: 2 treatment	Field visit	No optional components necessary
143	1048	S	Remove/replace with Alt.: 2 treatment	Field visit	No optional components necessary
144	1048	S	Remove/replace with Alt.: 2 treatment	Field visit	No optional components necessary
145	1049	S	Remove/replace with Alt.: 2 treatment	Field visit	No optional components necessary
146	1049	S	Remove/replace with Alt.: 2 treatment	Field visit	No optional components necessary
147	1049	S	Remove/replace with Alt.: 2 treatment	Field visit	No optional components necessary
148	1050	S	Remove/replace with Alt.: 3 treatment	Field visit	Add optional "No Motor Vehicles" sign
149	1050	S	Remove/replace with Alt.: 3 treatment	Field visit	Add optional "No Motor Vehicles" sign
150	1050	S	Remove/replace with Alt.: 3 treatment	Field visit	Add optional "No Motor Vehicles" sign
151	1051	T	Remove/replace with alt. treatment	Google Earth	Place three 12" stripes (approx. 40' long) @ trail connection to street (also covers 1052 & 1066)
152	1051	T	Remove/replace with alt. treatment	Google Earth	Place three 12" stripes (approx. 40' long) @ trail connection to street (also covers 1052 & 1066)
153	1051	T	Remove/replace with alt. treatment	Google Earth	Place three 12" stripes (approx. 40' long) @ trail connection to street (also covers 1052 & 1066)

BOLL. NO.	BOLL. GROUP	ATLAS PAGE	RECOMMENDATION	REVIEW TYPE	NOTES
154	1052	T	Remove/replace with alt. treatment	Google Earth	Place three 12" stripes (approx. 4C' long) @ trail connection to street (also covers 1051 & 1066)
155	1052	T	Remove/replace with alt. treatment	Google Earth	Place three 12" stripes (approx. 4C' long) @ trail connection to street (also covers 1051 & 1066)
156	1052	T	Remove/replace with alt. treatment	Google Earth	Place three 12" stripes (approx. 4C' long) @ trail connection to street (also covers 1051 & 1066)
157	1053	T	Remove	Google Earth	Trail-to-trail connection
158	1053	T	Remove	Google Earth	Trail-to-trail connection
159	1053	T	Remove	Google Earth	Trail-to-trail connection
160	1054	T	Remove	Pictures and data from MI	At crosswalk
161	1054	T	Remove	Pictures and data from MI	At crosswalk
162	1054	T	Remove	Pictures and data from MI	At crosswalk
163	1055	T	Remove	Google Earth	Trail crossing is clear
164	1055	T	Remove	Google Earth	Trail crossing is clear
165	1055	T	Remove	Google Earth	Trail crossing is clear
166	1056	T	Remove	Google Earth	Trail crossing is clear
167	1056	T	Remove	Google Earth	Trail crossing is clear
168	1056	T	Remove	Google Earth	Trail crossing is clear
169	1057	T	Remove	Google Earth	At crosswalk
170	1057	T	Remove	Google Earth	At crosswalk
171	1058	R	Remove	Pictures and data from MI	At crosswalk
172	1058	R	Remove	Pictures and data from MI	At crosswalk
173	1058	R	Remove	Pictures and data from MI	At crosswalk
174	1059	R	Remove	Pictures and data from MI	At crosswalk
175	1059	R	Remove	Pictures and data from MI	At crosswalk
176	1059	R	Remove	Pictures and data from MI	At crosswalk
177	1060	R	Remove/replace with alt. treatment	Google Earth	Add crosswalk (connects to 1061 below)
178	1060	R	Remove/replace with alt. treatment	Google Earth	Add crosswalk (connects to 1061 below)
179	1060	R	Remove/replace with alt. treatment	Google Earth	Add crosswalk (connects to 1061 below)
180	1061	R	Remove/replace with alt. treatment	Google Earth	Add crosswalk (connects to 1060 above)
181	1061	R	Remove/replace with alt. treatment	Google Earth	Add crosswalk (connects to 1060 above)
182	1061	R	Remove/replace with alt. treatment	Google Earth	Add crosswalk (connects to 1060 above)
183	1062	R	Remove	Pictures and data from MI	At crosswalk
184	1062	R	Remove	Pictures and data from MI	At crosswalk
185	1062	R	Remove	Pictures and data from MI	At crosswalk
186	1063	R	Remove	Google Earth	At crosswalk
187	1063	R	Remove	Google Earth	At crosswalk
188	1063	R	Remove	Google Earth	At crosswalk
189	1064	S	Remove/replace with Alt. 3 treatment	Field visit	No optional components necessary
190	1064	S	Remove/replace with Alt. 3 treatment	Field visit	No optional components necessary
191	1064	S	Remove/replace with Alt. 3 treatment	Field visit	No optional components necessary
192	1065	D	Remove/replace with Alt. 2 treatment	Field visit	No optional components necessary
193	1065	D	Remove/replace with Alt. 2 treatment	Field visit	No optional components necessary
194	1065	D	Remove/replace with Alt. 2 treatment	Field visit	No optional components necessary
195	1066	T	Remove/replace with alt. treatment	Google Earth	Place three 12" stripes (approx. 4C' long) @ trail connection to street (also covers 1051 & 1052)
196	1066	T	Remove/replace with alt. treatment	Google Earth	Place three 12" stripes (approx. 4C' long) @ trail connection to street (also covers 1051 & 1052)

Where bollards are removed it is important to properly repair the pavement where the bollard was located. If pavement patches are used in lieu of full pavement replacement, the patch surfacing material should be the same as the surrounding surfacing material (i.e. use cement concrete patches in cement concrete pavement, asphalt patches in asphalt pavement).

The team recognizes that there are many bollards evaluated by this memo that may lie within WSDOT right-of-way limits. As such, removal of those bollards would require close coordination with WSDOT.

A planning-level construction cost estimate is provided in Appendix D. This estimate provides for the estimated costs to remove the existing bollards, repair the pavement at those locations, and apply new treatments as recommended in the table above.

Example Bollard Removal Repair



At locations where bollards are removed, the existing bollard and any in-pavement structural support should be removed in their entirety and replaced by a full repair patch. The repair patch should be a continuous surface with the surrounding trail surface.

CONCLUSION

The I-90 Trail across Mercer Island currently uses bollards that were placed during the original construction of the trail in the early 1990s. The team reviewed all bollards to evaluate their need and purpose, in light of more recent bollard guidance and best practice. Current guidance indicates that bollards should only be used where there is a demonstrated need to address motor vehicle intrusion. Using that guidance, and based on a thorough review of all bollards located within the I-90 trail corridor on Mercer Island, the team recommends that most bollards be removed.

APPENDIX A

“Decision Guidelines for Bollards”

Technical Memo

TECHNICAL MEMO

MERCER ISLAND I-90 TRAIL PROJECT

DECISION GUIDELINES FOR BOLLARDS

October 18, 2016

PURPOSE

The purpose of this memo is to provide recommended guidance governing the application and placement of bollards within the Mercer Island portion of the I-90 Trail.

INTRODUCTION

Bollards have long been used for a wide variety of purposes and functions. When placed in the public right-of-way, bollards can be used to establish traffic patterns, to delineate the separation of different types of spaces and uses, or be used as physical barriers. When used on public trails and pathways, bollards are typically used as a physical barrier to motorized vehicles, while at the same time allowing passage of foot traffic, bicycles, wheelchairs, baby strollers, etc. This type of bollard usage typically includes a removable bollard so that authorized motorized vehicles may bypass the barrier when needed.

This last type of bollard usage presents a conflict of functions that can create unwanted secondary concerns. While a bollard serves the positive function of preventing unauthorized vehicle access, it also represents an impediment to the intended users of the trail or pathway. Because of this, the positive aspects of preventing unauthorized vehicle access may not always outweigh the safety and usability concerns that might arise as a result of placing a bollard within the usable pathway cross-section. For the I-90 Trail across Mercer Island, the use of bollards along this section of trail will be evaluated against purpose, need, and national and state bollard guidance to determine where bollards should be used. This memo addresses bollards placed as a physical barrier to motor vehicles across a pathway. Bollards are not used as longitudinal separations between different types of spaces along the I-90 Trail and are therefore not addressed in this memo.

The I-90 Trail is one of the most heavily used trails in the King County regional trail system, averaging over 750,000 users per year on Mercer Island. At the time of this writing, the I-90 Trail is the only multi-use trail that crosses Lake Washington, and as such it provides bicycle and pedestrian access between Seattle, Mercer Island, and communities on the east side of the lake.

The I-90 Trail is a regional trail that was originally built with the support of multiple partners. While the portion of the I-90 Trail that crosses Mercer Island lies mostly within Washington State Department of

Transportation (WSDOT) right-of-way, it is maintained by the City of Mercer Island through a maintenance agreement. As it crosses the island, the trail generally parallels I-90, with portions of the trail following City streets across the island. Some areas of the trail pass through several parks on the island, and there are multiple locations of street crossings of the trail. The trail is typically built as a smooth paved sidepath¹, with a width to accommodate different users and reduce user conflicts, though there are segments that exist on sidewalks as well.

At most street crossings and other access points to the trail, square wooden bollards were placed across the trail access point in order to control motorized vehicle access to the paved trail. These bollards are typically placed in groups of three, with one bollard on either edge of the paved trail and one in the middle, arranged perpendicularly across the trail. Some of the original bollards have been reflectorized² and/or painted white, to increase visibility of the bollards.

Since the time that the original I-90 Trail was constructed, the standard of practice and guidance related to bollard usage on trails has evolved. While bollards were typically installed as a matter of course during that time period, with little to no evaluative analysis involved, current practice is to limit the use of bollards to those locations where there is a demonstrated need. The following memo sections will present current national and state bollard guidance, along with additional pertinent rules and best practice considerations, to develop a set of recommendations to inform the placement of bollards on the I-90 Trail across Mercer Island.

¹ The terms “sidepath”, “shared use path”, and “sidewalk” are used in this memo to designate different types of physical forms that the I-90 Trail takes as it crosses Mercer Island. The term “sidewalk” is used in its commonly-recognizable form, identifying paved walkways immediately adjacent a roadway, while the term “sidepath” refers to a paved pathway whose alignment parallels a roadway but is physically separated from the roadway, either by barrier, lateral offset, or both. The term “shared use path” denotes any pathway that is designated for both wheeled and foot traffic, which can take the form of either a sidepath, a sidewalk, or a pathway that is independent of any roadway alignment. The term “trail” typically is used only for its generic meaning in this memo and does not indicate a specific physical form.

² The terms “retroreflective” and “reflective”, and associated word forms, are used interchangeably in this memo, and refer to an object’s optical property in which most of the light that falls on that object is reflected back in the same direction from which it came. Virtually all commercially-produced materials and markers that are marketed as being “reflective” are technically “retroreflective”.

CURRENT NATIONAL AND STATE GUIDANCE

The current applicable guidance comes from the 2012 edition of the AASHTO Guide for the Development of Bicycle Facilities (“AASHTO Bike Guide”) and the current version of the WSDOT Design Manual.³

According to the 2012 AASHTO Bike Guide:

- The unauthorized use of trails by motor vehicles does occur on some trails. However, this unauthorized use should not be anticipated to occur at all trail locations. The AASHTO Bike Guide states that bollards should only be used in the case of a documented history of ‘unauthorized intrusion’. The routine use of bollards to limit access of motor vehicles to a shared-use path is therefore not recommended. Bollards are often ineffective at keeping out motor vehicles, and can create a permanent safety hazard for trail users.
- Bollards can present a safety problem for bicyclists.
- Bollards should not be installed on trails at locations where motor vehicles could easily bypass the bollard to access the trail on adjacent property.
- The Guide suggests considering the following three step strategy to restrict motor vehicle use prior to considering the installation of bollards:
 - Post a R5-3 (from the FHWA “Manual on Uniform Traffic Control Devices”, or “MUTCD”) “NO MOTOR VEHICLES” sign at trail/roadway crossings.
 - Design the path access to differentiate the path from motorized vehicle access. Landscaped medians are noted as a preferred method of restricting access (designating emergency vehicle access to secured access drives). Another strategy for emergency vehicle access is to use removable bollards.
 - Consider targeted enforcement if motor vehicle intrusion is an issue.
- If used, bollards should be marked with a retroreflectorized material on both sides or with appropriate object markers (see section 9B.26 of the 2009 MUTCD), and should provide sufficient clear width for people riding adult tricycles, bicycles towing trailers, and tandem bicycles to pass by the bollard without having to dismount as well as to serve people traveling with disabilities. AASHTO recommends usage of a single bollard placed in the center of the path, and notes that flexible delineator posts may be recommended to reduce the possibility of injuries.
- Bollard placement should ensure adequate sight distance for a person to be able to see an approaching bollard. To improve visibility, it recommends a bollard minimum height of 40 inches and a minimum diameter of 4 inches. Taller bollards can improve visibility. When more than one post (bollard) is used, an odd number spaced at 6 ft. is desirable. Two posts are not

³ *Bollard policies of other agencies in the region were reviewed and no additional guidance specific to bollard usage was available. While most agencies do have standard bollard types that are specified, there is little guidance available that describes any type of analytical bollard use approach. Other agencies in the region that were reviewed include King County, the City of Seattle, the City of Portland, the City of Bellevue, the City of Kirkland, the City of Redmond, the City of Tacoma, and the City of Vancouver, B.C.*

recommended as they direct people towards the center of the path, increasing the risk of collision.

- It also recommends bollards be set back a minimum of 30 feet from a roadway edge to allow bicyclists time to maneuver around the bollard before they must navigate the intersection crossing.
- It recommends the striping of an envelope around the obstruction (see Figure 1 from MUTCD below).

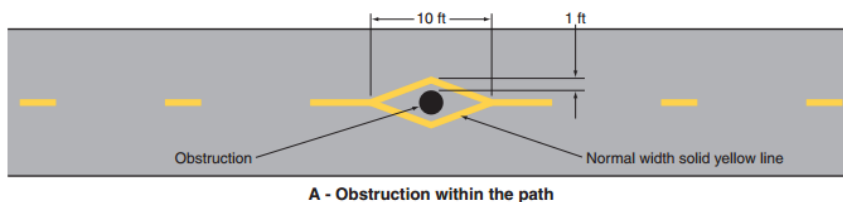


FIGURE 1: MUTCD FIGURE 9C-8

The WSDOT Design Manual provides further guidance on application and installation of bollards:⁴

- Similar to the AASHTO Guide, WSDOT does not recommend widespread use of bollards to restrict unauthorized access. WSDOT also prefers using landscaped islands to restrict motor vehicles by splitting the entryway (using low-growing, hardy plants that can still allow authorized vehicles to pass over).
- WSDOT recommends the use of reflective materials on the post, such as a band at the top and at the base. WSDOT also recommends using a contrasting striping pattern on the post.
- WSDOT recommends designing bollards to be uniform. WSDOT also suggests using removable bollards for emergency vehicle access.
- If bollards are needed, WSDOT also recommends using a single bollard placed in the center of the path to reduce confusion (and locating any needed additional bollards outside the path), and striping an envelope of space around bollards in accordance with the MUTCD guidance shown above. WSDOT states that if multiple bollards are needed, a minimum spacing of 5 feet between the edges of bollards' concrete footings should be used to provide a clear width for vehicles with coaxial wheels such as bicycle-towed trailers, wheelchairs, and adult tricycles.
- For cases where multiple bollards are used longitudinally along the path, locate multiple posts at least 20 feet apart, with the first post in line from each direction having stopping sight distance.
- "Do not use bollards to divert or slow path traffic." WSDOT assumes a 20 mph design speed for flat trail sections and a 30 mph design speed for sustained downhill sections.
- WSDOT recommends that designs make bollards clearly visible to path users, and requires an adequate stopping sight distance. "An ideal location for bollard placement is in a relatively straight area of the path where the post placement has the stopping sight distance given in Exhibit 1515-14A and 14B."

⁴ WSDOT Design Manual, Chapter 1515. For more detail, refer to Standard Plan M-9.60-00

BOLLARD PLACEMENT RECOMMENDATIONS

The primary considerations from national and state guidance related to bollard placement fall into three primary categories: safety, ADA accessibility, and maintenance accessibility. The information provided below organizes and summarizes bollard-specific guidance from the AASHTO Bike Guide, the MUTCD, and the WSDOT Design Manual, and also provides additional guidance that is emerging from current best practice in this field. The universal access requirements of the Americans with Disabilities Act (ADA) also influence certain bollard decisions.

SAFETY

Because bollards are often placed within the usable area of a trail, or on the outer edges of that usable area, they can present safety concerns to users of the trail, particularly for bicycles that travel at higher speeds than walkers or runners. At typical bicycle speeds, it is important to provide sufficient visual cues to alert the cyclist to the presence of the bollard, and to provide enough advance warning to allow the cyclist to adjust their speed or course as needed.

Safety concerns generally result from three aspects of bollard placement: locational properties of the bollard, trail characteristics at the bollard location, and physical characteristics of the bollard itself.

A. Location of Bollards

For any given location being considered for a bollard, the fundamental decision is whether a bollard should or should not be placed at that location. Generally, bollards can be an obstruction to path users and are not recommended for routine use. Bollards should never be used to divert or slow path traffic. When it is not entirely clear whether to install a bollard at a location in question, it is better to err on the side of caution and not install the bollard.

Alternate methods of restricting motor vehicle access should be considered prior to any bollard use. Alternate methods in lieu of bollards could include signage, landscaped medians, or targeted enforcement.

If it is demonstrated that bollards are needed to address motor vehicle intrusion, the placement should carefully consider safety trade-offs that may result. Bollard location should be designed to allow for sufficient visibility, provide clear space for trail users to navigate around them without dismounting their bicycle, and be set back from intersections.

Sight distance provided at each bollard should meet the requirements defined in the WSDOT Design Manual, Exhibits 1515-14A and -14B. The minimum number of bollards that can create the intended purpose at each location should be used. Bollards should be used in groups of odd numbers (e.g. 1, 3, or 5) such that the centerline of the trail leads to a centrally-placed bollard, in order to avoid conflicts with traffic traveling in opposite directions attempting to use the same gap between bollards. Unless there is a critical need, bollards should not be placed on the outside edges of the trail.

Spacing between bollards should ideally be at least 6 feet, with 5 feet considered as the functional minimum. Spacing between bollards is defined as the minimum clear space between adjacent bollards, not the distance between bollard centers. It should be noted that bollards set 8 feet apart or wider will not prevent motorized vehicles from passing; therefore, the effective range of bollard spacing is normally 5 to 7 feet.

Bollards set on trails at street crossings should be a minimum of 30 feet from the edge of roadway so the attention of the cyclist can focus on maneuvering around the bollard as a separate action from crossing the roadway, though the placement of the bollards should always meet sight distance criteria described above.

B. Trail Characteristics

The geometric characteristics of the trail at a potential bollard location may influence whether a bollard should be used. Conversely, if a bollard must be used but the trail characteristics are not favorable at that location, some changes to the trail geometry should be considered in concert with the bollard placement.

Bollards should never be placed in high-speed sections of trail. “High speed sections” in this context means any portion of a trail where bicycle speeds higher than 15 mph can be reasonably expected. Such sections would include locations at the ends of long downhill sections or long uninterrupted straight sections. If bollards are required in a section of trail that is currently a high-speed section, changes to the existing trail geometry should also be considered in order to slow riders ahead of encountering the bollards. Such changes might include adding chicanes to slow bicycle traffic; however, it is understood that any changes to trail geometry should provide for a gradual slowing of bicycle traffic rather than causing an abrupt change.

Artificial nighttime lighting and ambient daytime lighting are concerns at bollard locations. When considering nighttime lighting conditions, ideally bollards should be placed at locations with sufficient artificial lighting to allow trail users to see the bollard even when not using their own lighting. If there is no opportunity to locate bollards near artificial lighting, such as on trails where no artificial lighting is used, additional pavement markings or other warning devices should be considered in advance of the bollard location. When considering daytime lighting conditions, bollards should not be placed in locations where a sudden change in lighting conditions exists, such as at the entrances to tunnels or overpasses. It is important to also consider the changing shadow pattern throughout the day in these circumstances.

Pavement markings should be used on both sides of each bollard in order to provide advance warning to cyclists approaching the bollard. At a minimum, striping should adhere to the envelope striping as described in MUTCD Figure 9C-8. Additional striping may be advisable, such as centerline striping 25 feet on either side of the bollard, or gore striping if the bollard is located ahead of a split in the trail.

Very high trail ridership volumes may also indicate not using bollards. For trails with very high volumes of users, the presence of a number of bicyclists grouped together can shield the

approaching view of bollards for trailing riders. If bollards must be used in locations where groups of riders frequently pass together, it is recommended that additional advance warning be provided, such as additional signing or pavement markings. Taller bollards should also be considered so that trailing riders can see approaching bollards over the group of riders ahead, though special care should be taken in the placement of taller bollards due to the potential for bicycle handlebars to strike taller bollards (further details provided in the height guidance in the following section).

C. Physical Characteristics

Each bollard should have a minimum diameter of 4" (both circular/elliptical and polygonal sections). Bollards with a triangular section are not recommended since they do not present the same face to each direction of traffic. Although the AASHTO Bike Guide recommends a minimum height of 40 inches, it should be considered that bollards taller than about 30" (2.5 feet) will require that more space be provided between bollards since such bollards may not allow all bicycles' handlebars to pass over the top.

Bollards should be of a color and material that provides a strong visual contrast to the surrounding environment. Bollards should be retroreflectorized; the reflective portion of the bollard should cover the full width of the bollard, and should be a minimum of 4" in height on the bollard. Retroreflectivity should be provided around the full circumference of the bollard, even on those sides that do not face the direction of travel on the trail.

Internally-lit bollards should also adhere to all of the visibility requirements of non-lit bollards in order to provide the same level of functionality in case of power failure.

The use of non-rigid devices (i.e. flexible posts or bollards with a spring-hinge base) can be considered as an option to rigid devices, with the understanding that the use of non-rigid devices does not change or eliminate any of the requirements regarding the physical characteristics and location criteria of the bollards.

The physical characteristics of the bollards selected for use should be the same along a given trail corridor, in order to provide a consistent expectation for the trail user.

Removable bollards should be fully removable and not of the hinged "lay down" type, in order to prevent bicycle accidents while the bollard is lowered. No part of the receiver for the removable bollard should extend horizontally more than 2" from the edge of the bollard post at ground level, and should be entirely flush with the trail surface. There should be a permanently-affixed cap that covers the open hole created when the bollard is removed. All portions of the cover and receiver should be flush with the trail surface when the bollard is removed, and should be treated with a non-slip surfacing. When the cover is in place there should be no gaps greater than ¼" in any part of the cover or receiver. Ideally, covers that lock down are preferred, particularly in locations where bollards may be removed for long periods of time. Additional ADA requirements may apply (see below).

ADA CONSIDERATIONS

Due to the fact that the I-90 Trail is open for general public use, it falls under the accessibility requirements of the Americans with Disabilities Act (ADA). The ADA-related requirements are codified in rules promulgated by the Architectural and Transportation Barriers Compliance Board (“Access Board”). The I-90 Trail lies within public right-of-way, parts of which are independent of a street network and parts of which follow a parallel roadway. The I-90 Trail should meet the accessibility guidelines outlined in the Access Board’s current proposed PROWAG requirements and proposed Accessibility Guidelines for Shared Use Paths. Bollard placement should not reduce the ‘clear width’ required by federal accessibility guidance for safe passage of people with disabilities.

Because ADA requirements are evolving, and are codified by federal requirements for all facilities, not just trails, the specific ADA codes will not be enumerated here. Current ADA codes can be found on the United States Access Board’s website at <http://www.access-board.gov>

MAINTENANCE AND EMERGENCY VEHICLES

If the trail must be accessible to maintenance and emergency vehicles, it is recommended that bollards, if used, be flexible or removable. If landscaped medians are used to discourage unauthorized access, use low-growing native species plantings that could be driven over without damage in order to provide maintenance vehicle access.

CONCLUSION

The I-90 Trail across Mercer Island currently uses bollards that were placed during the original construction of the trail in the early 1990s. These bollards were ostensibly placed to prevent motor vehicle access to the trail. In the time since the bollards were placed, the state of the practice has evolved to the extent that the locations and type of bollard that exist on the trail can now be re-evaluated according to more recent bollard best practice. The guidance provided in this memo should be used to evaluate and recommend adjustments to the bollard layout along the trail, as well as the type of bollard to be used.

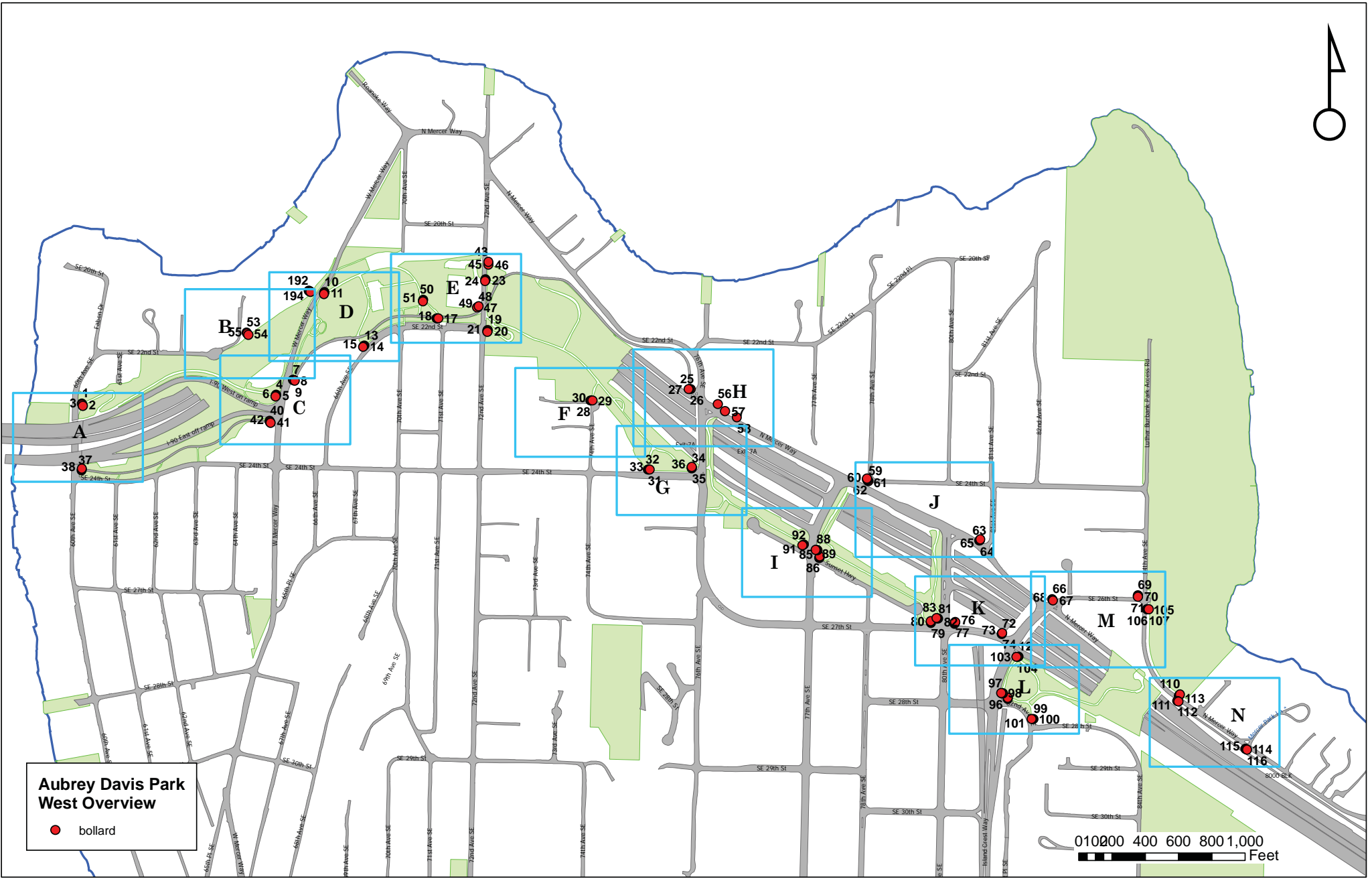
Best Practice

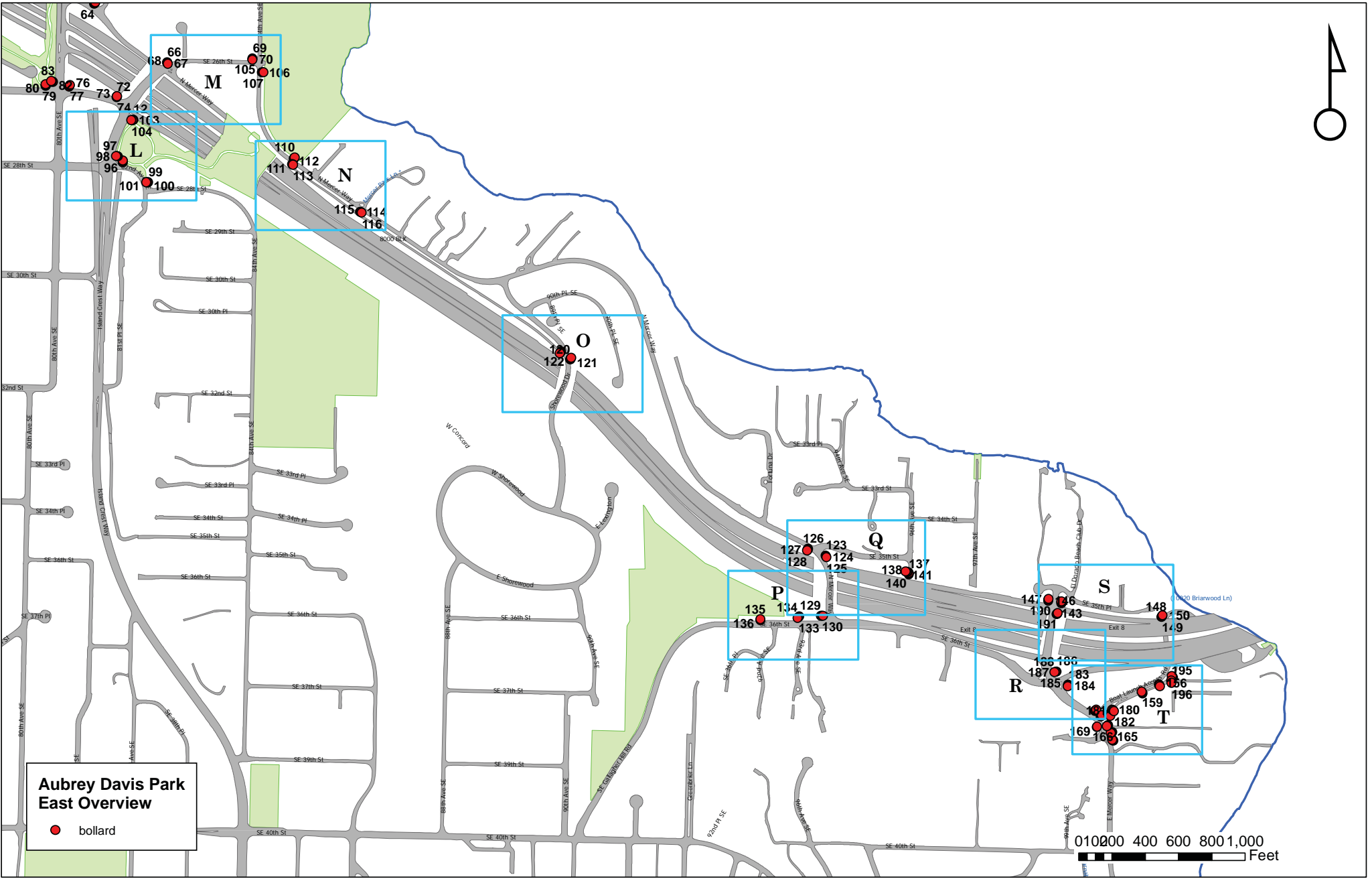


Per guidance in the 2012 AASHTO Bike Guide, Seattle is phasing out bollards and using other designs to enhance safety at roadway/trail crossings (Burke Gilman Trail).

APPENDIX B

City of Mercer Island Bollard Atlas
(with added bollard group numbers)







**Aubrey Davis Park
A - West Portal**

● bollard

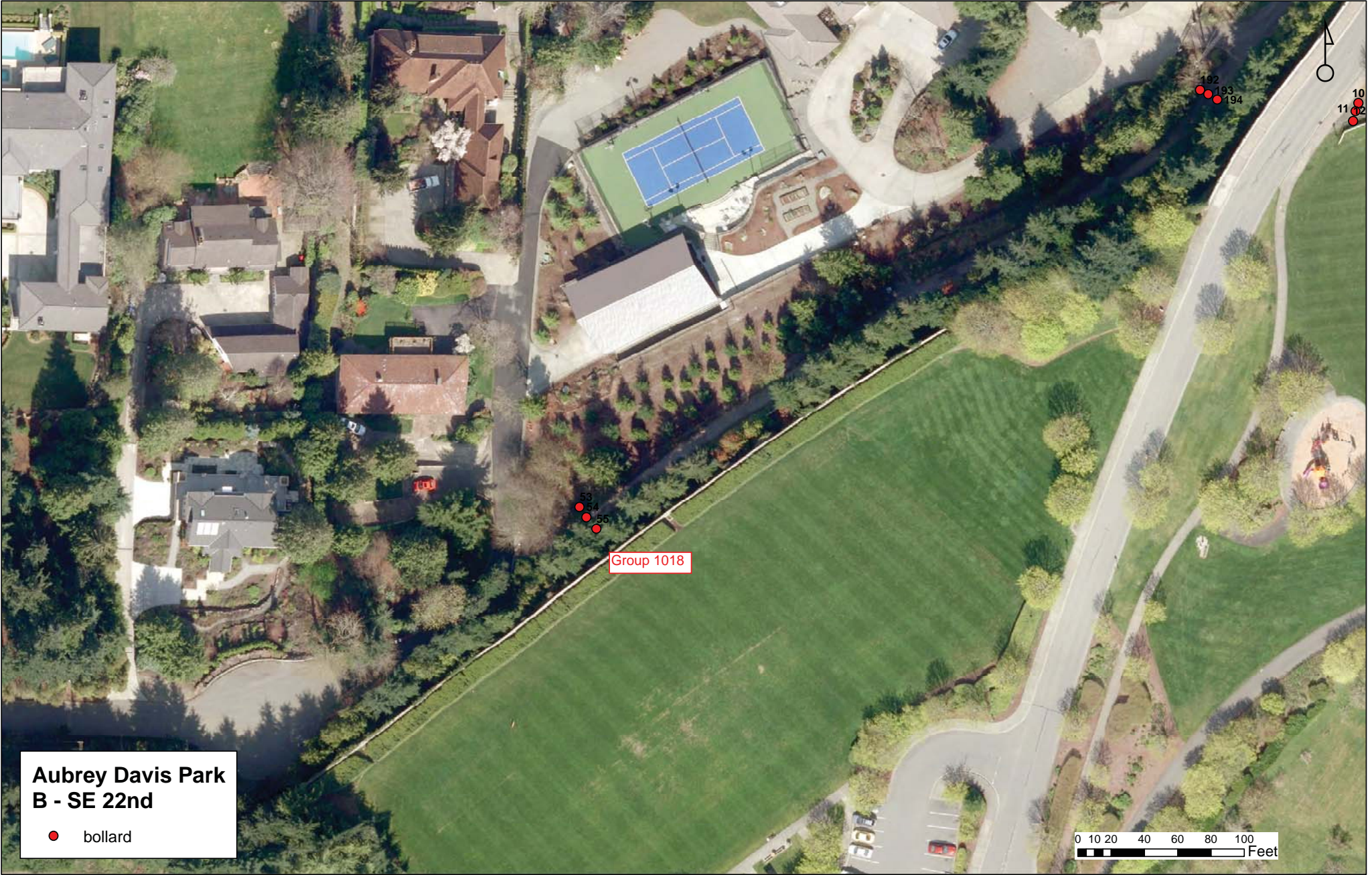
Group 1001

1
2
3

39
38
37

Group 1013

0 10 20 40 60 80 100 Feet



**Aubrey Davis Park
B - SE 22nd**

● bollard

Group 1018

0 10 20 40 60 80 100 Feet





Group 1065

192
193
194

Group 1004

10
11
12

Group 1005

13
14
15

Aubrey Davis Park
D - 66th Ave SE

● bollard

0 10 20 40 60 80 100 Feet





Group 1010

28 29
30 31

Aubrey Davis Park
F - 74th Ave SE

● bollard

0 10 20 40 60 80 100 Feet



**Aubrey Davis Park
G - SE 24th St**

● bollard

Group 1012

Group 1011

31 32
33

36
35 34

0 10 20 40 60 80 100
Feet

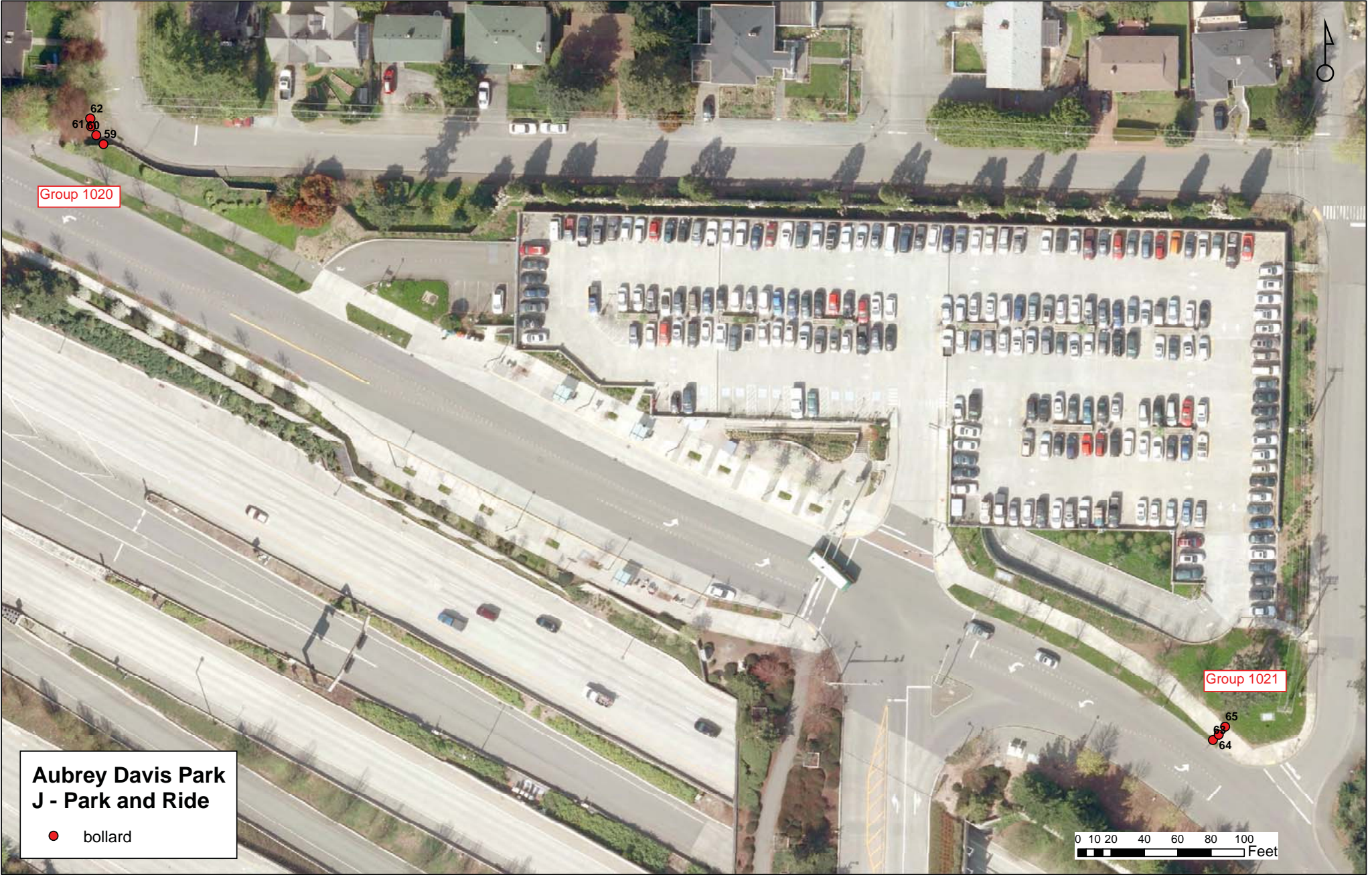




**Aubrey Davis Park
I - 77th Ave SE**

● bollard

0 10 20 40 60 80 100 Feet



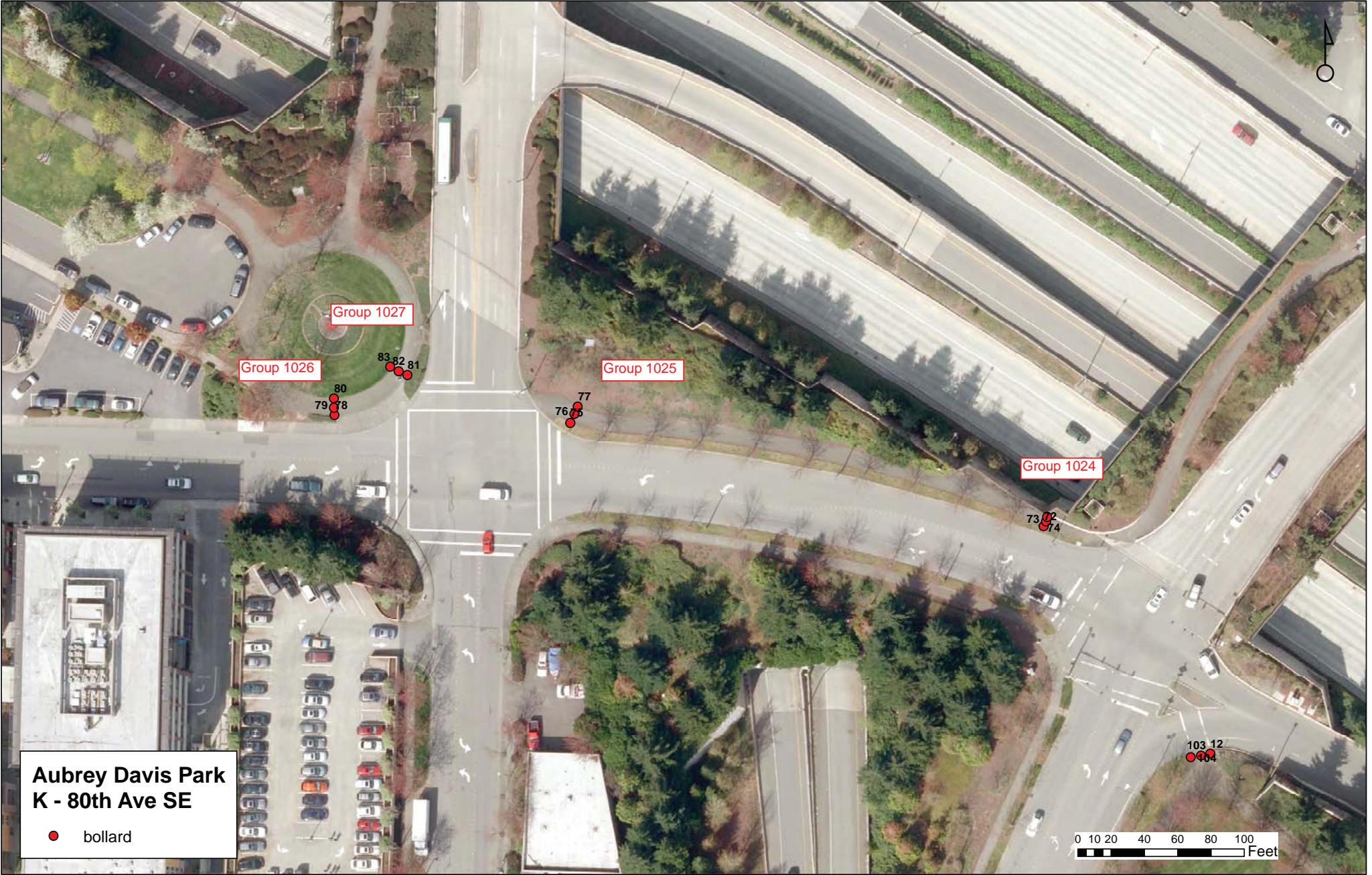
Group 1020

Group 1021

**Aubrey Davis Park
J - Park and Ride**

● bollard

0 10 20 40 60 80 100
Feet





**Aubrey Davis Park
L - Island Crest Way**

● bollard

Group 1034

103 12
104

Group 1032

98 97 96

Group 1031

95
94 93

Group 1033

100 99

0 10 20 40 60 80 100
Feet



Group 1022

Group 1023

Group 1035

**Aubrey Davis Park
M - SE 26th St**

● bollard

0 10 20 40 60 80 100
Feet





**Aubrey Davis Park
O - Shorewood**

● bollard

0 10 20 40 60 80 100 Feet



**Aubrey Davis Park
P - SE 36th St**

● bollard

0 10 20 40 60 80 100 Feet





**Aubrey Davis Park
R - E Mercer Way**

● bollard

Group 1063

Group 1062

Group 1058

Group 1061

Group 1059

Group 1060

0 10 20 40 60 80 100 Feet



Group 1049

Group 1048

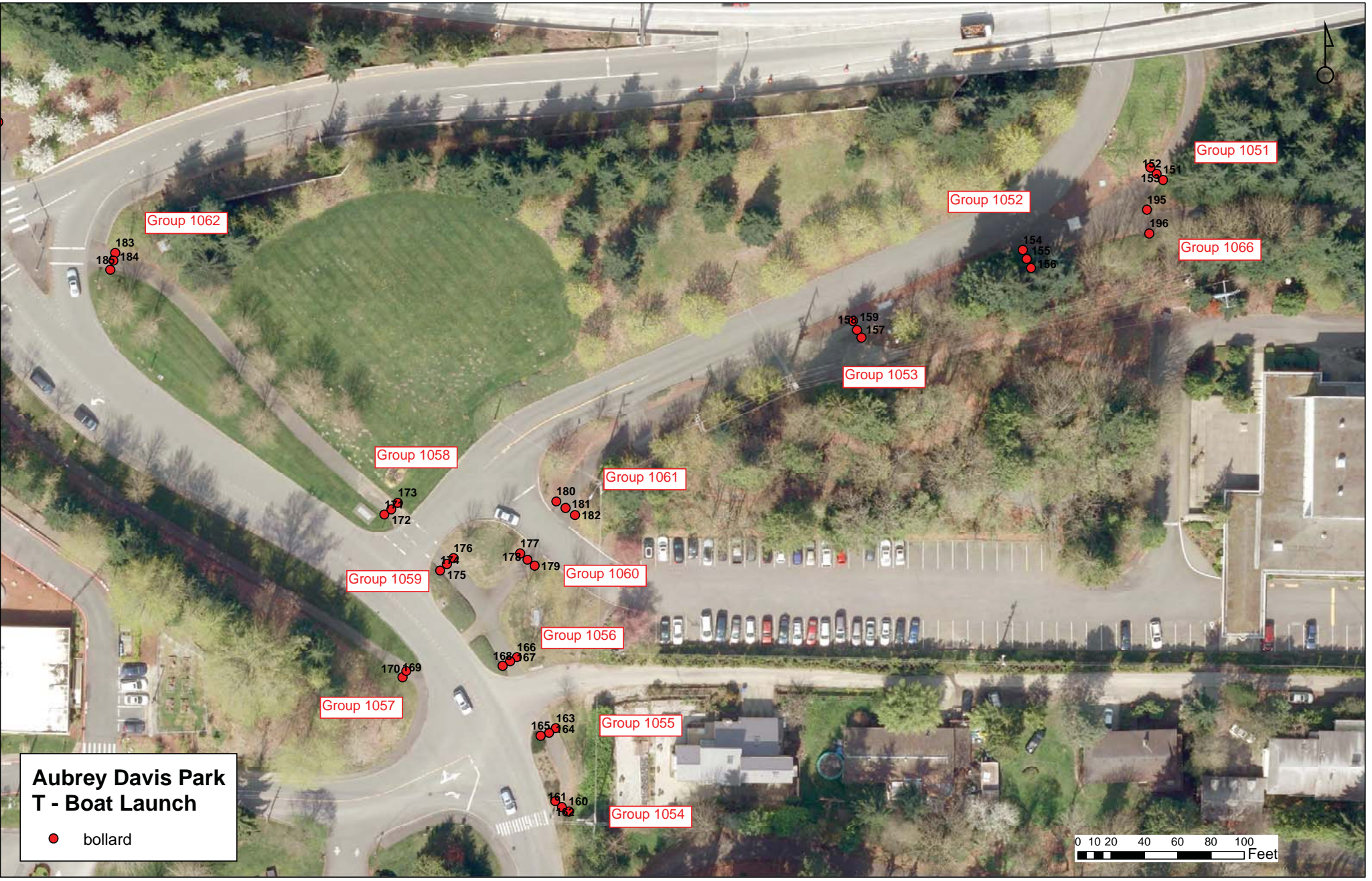
Group 1050

Group 1064

**Aubrey Davis Park
S - East Portal**

● bollard

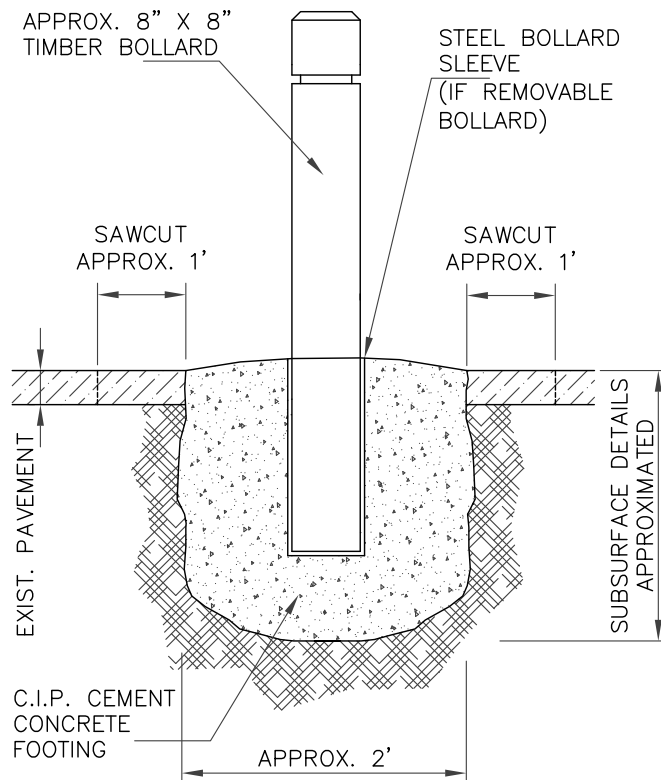
0 10 20 40 60 80 100
Feet



APPENDIX C

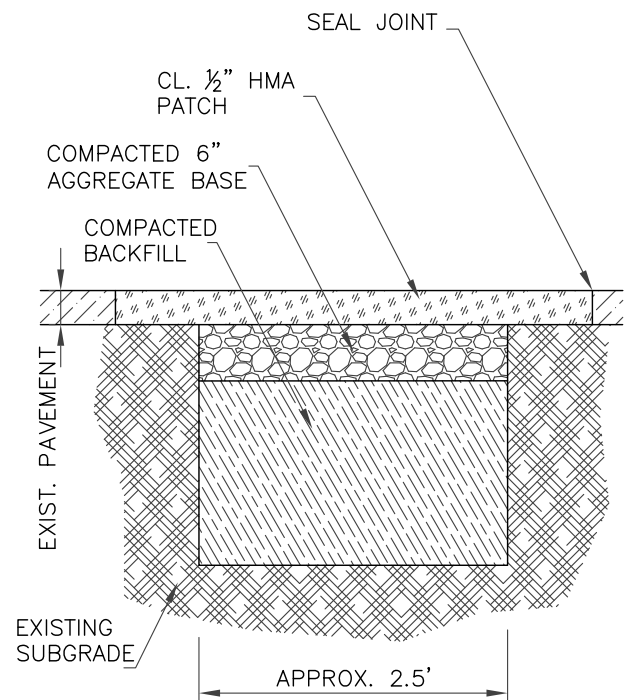
Representational Figures of
Bollard Removal and
Potential Alternate Treatments

Bollard Removal - Individual Bollards



EXISTING CONDITIONS – TYP.

N.T.S.



BACKFILL & PATCH DETAILS

N.T.S.

NOTES:

- ORIGINAL CONSTRUCTION DETAILS ARE UNKNOWN. DIMENSIONS SHOWN ARE APPROXIMATE ONLY.
- DETAILS DEPICTED ARE SCHEMATIC ONLY, INTENDED TO REPRESENT A GENERALIZED ORDER OF WORK.
- ANTICIPATED REMOVAL AND REPAIR STEPS:
 - SAWCUT EXISTING PAVEMENT IN SQUARE PATTERN 1' FROM EDGE OF EXISTING CONCRETE FOOTING
 - BREAK UP AND REMOVE (OR PULL) EXISTING FOOTING
 - BACKFILL AS SHOWN WITH BORROW AND AGGREGATE BASE, COMPACTING ALL PLACED MATERIAL ACCORDING TO WSDOT OR EQUIVALENT SPECS
 - PLACE AND COMPACT HMA CL. 1/2" IN 2" LIFTS TO MATCH EXISTING PAVEMENT DEPTH (SEAL PAVEMENT JOINTS WITH ASPHALT SEALER)

FIGURE DEVELOPED FOR COST
ESTIMATING PURPOSES ONLY
-- NOT A DESIGN --
NOT FOR CONSTRUCTION



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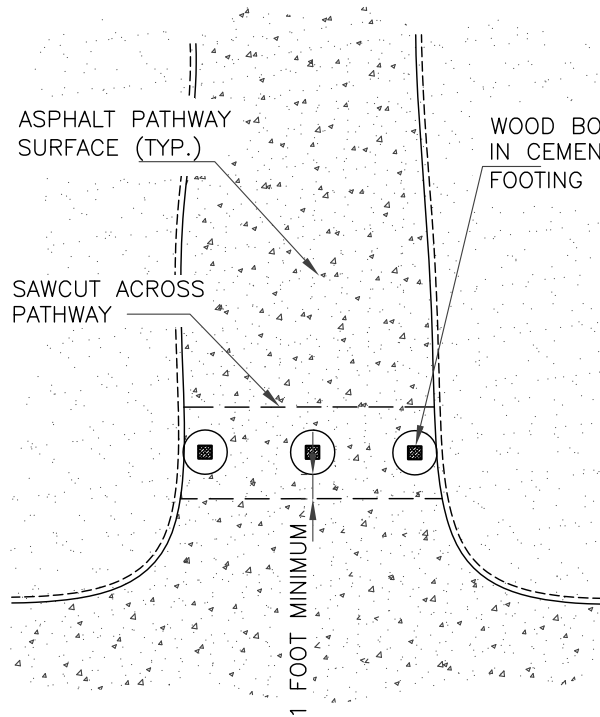
I-90 Trail - Bollards
MERCER ISLAND PARKS
MERCER ISLAND, WA

DETAIL OF PAVEMENT
REPAIR FOR TYPICAL
BOLLARD REMOVAL
IN CONCRETE WITHIN
ASPHALT PAVEMENT

NOT FOR
CONSTRUCTION
DATE: OCT 24, 2014

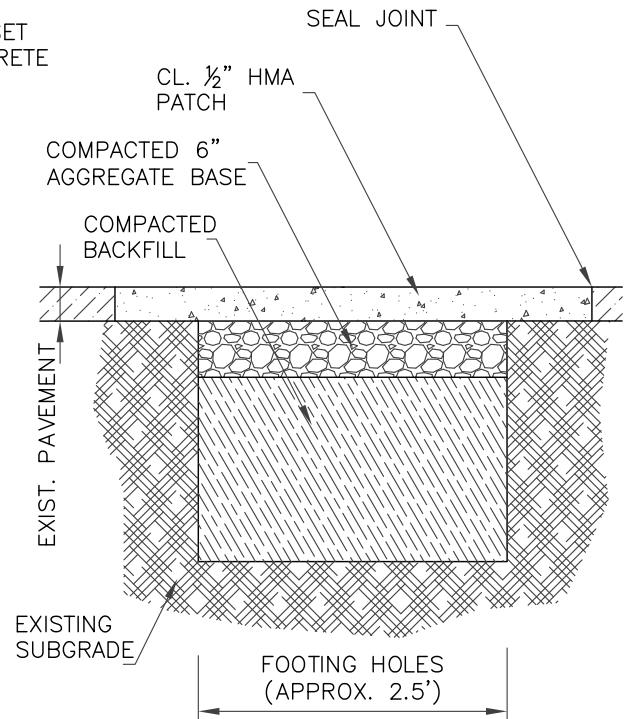
SHEET NAME:
BOLLARD REMOVAL
PAVEMENT REPAIR
DRAWING NUMBER
PR.1
SHEET NUMBER
01 OF 06

Bollard Removal - Bollard Groups



SAWCUTTING LOCATION (PLAN)

N.T.S.



BACKFILL & PATCH (SECTION)

N.T.S.

NOTES:

- A. ORIGINAL CONSTRUCTION DETAILS ARE UNKNOWN. DIMENSIONS SHOWN ARE APPROXIMATE ONLY.
- B. DETAILS DEPICTED ARE SCHEMATIC ONLY, INTENDED TO REPRESENT A GENERALIZED ORDER OF WORK.
- C. REMOVAL AND REPAIR STEPS:
 1. SAWCUT EXISTING PAVEMENT ACROSS PATHWAY AS SHOWN (MINIMUM 1' OFFSET FROM FOOTINGS)
 2. REMOVE EXISTING PAVEMENT WITHIN SAWCUT AREA
 3. BREAK UP OR PULL EXISTING CEMENT CONCRETE FOOTINGS WITH BOLLARDS
 4. BACKFILL HOLES LEFT BY FOOTINGS AS SHOWN WITH BORROW AND AGGREGATE BASE, COMPACTING ALL MATERIAL ACCORDING TO WSDOT OR EQUIVALENT SPECS
 5. PLACE AND COMPACT HMA CL. 1/2" IN 2" LIFTS TO MATCH EXISTING PAVEMENT DEPTH (SEAL PAVEMENT JOINTS WITH ASPHALT SEALER)

**FIGURE DEVELOPED FOR COST
ESTIMATING PURPOSES ONLY
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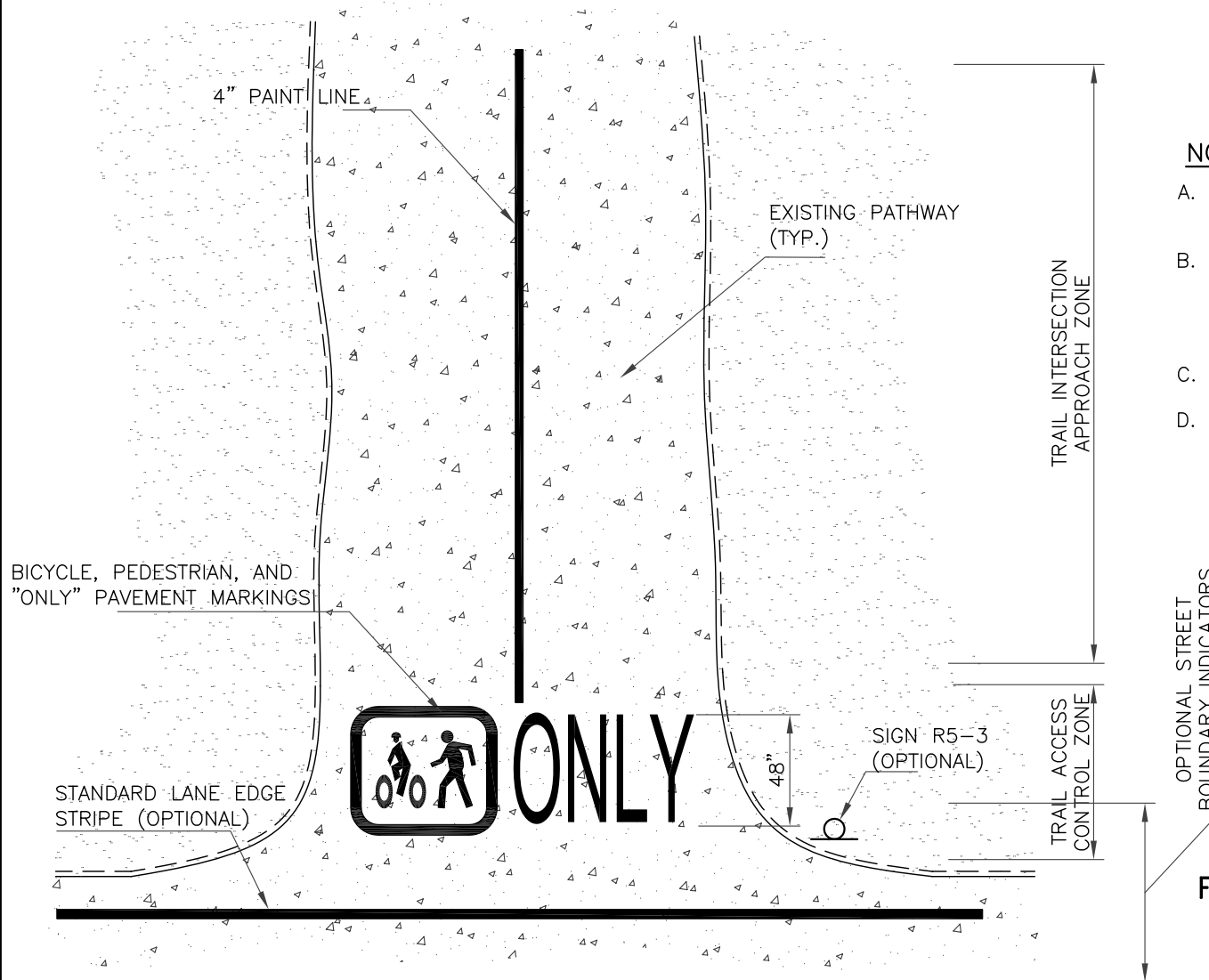
I-90 Trail - Bollards
MERCER ISLAND PARKS
MERCER ISLAND, WA

DETAIL OF PAVEMENT
REPAIR FOR TYPICAL
BOLLARD EMBEDDED
IN CONCRETE WITHIN
ASPHALT PAVEMENT

NOT FOR
CONSTRUCTION
DATE: OCT 24, 2014

SHEET NAME:
BOLLARD REMOVAL
PAVEMENT REPAIR
DRAWING NUMBER
PR.2
SHEET NUMBER
02 OF 06

Alternate Treatment 1 - Painted Bike/Ped Only Access Point



OPTIONAL SIGN
(MUTCD R5-3)



NOTES:

- FEATURES SHOWN ARE REPRESENTATIONAL ONLY AND DO NOT DEPICT A SPECIFIC LOCATION OR SPECIFIC DESIGN DETAILS.
- DIAGRAM IS SCHEMATIC ONLY, SHOWING APPROXIMATE RELATIONSHIP OF EXISTING FEATURES AND DESIGN ELEMENTS. ACTUAL DESIGN TO BE DETERMINED DURING PROJECT DEVELOPMENT.
- DIAGRAM AND FEATURES SHOWN ARE NOT DRAWN TO SCALE.
- LANE EDGE STRIPING ALONG ADJACENT ROADWAY IS OPTIONAL. SIGN R5-3 IS ALSO OPTIONAL. USE OF THESE FEATURES TO BE DETERMINED DURING PROJECT DESIGN.

FIGURE DEVELOPED FOR COST
ESTIMATING PURPOSES ONLY
-- NOT A DESIGN --
NOT FOR CONSTRUCTION



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I-90 Trail - Bollards
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ALTERNATIVE ACCESS
CONTROL FEATURES,
OPTION 1
PAVEMENT MARKING 1
NOT FOR CONSTRUCTION

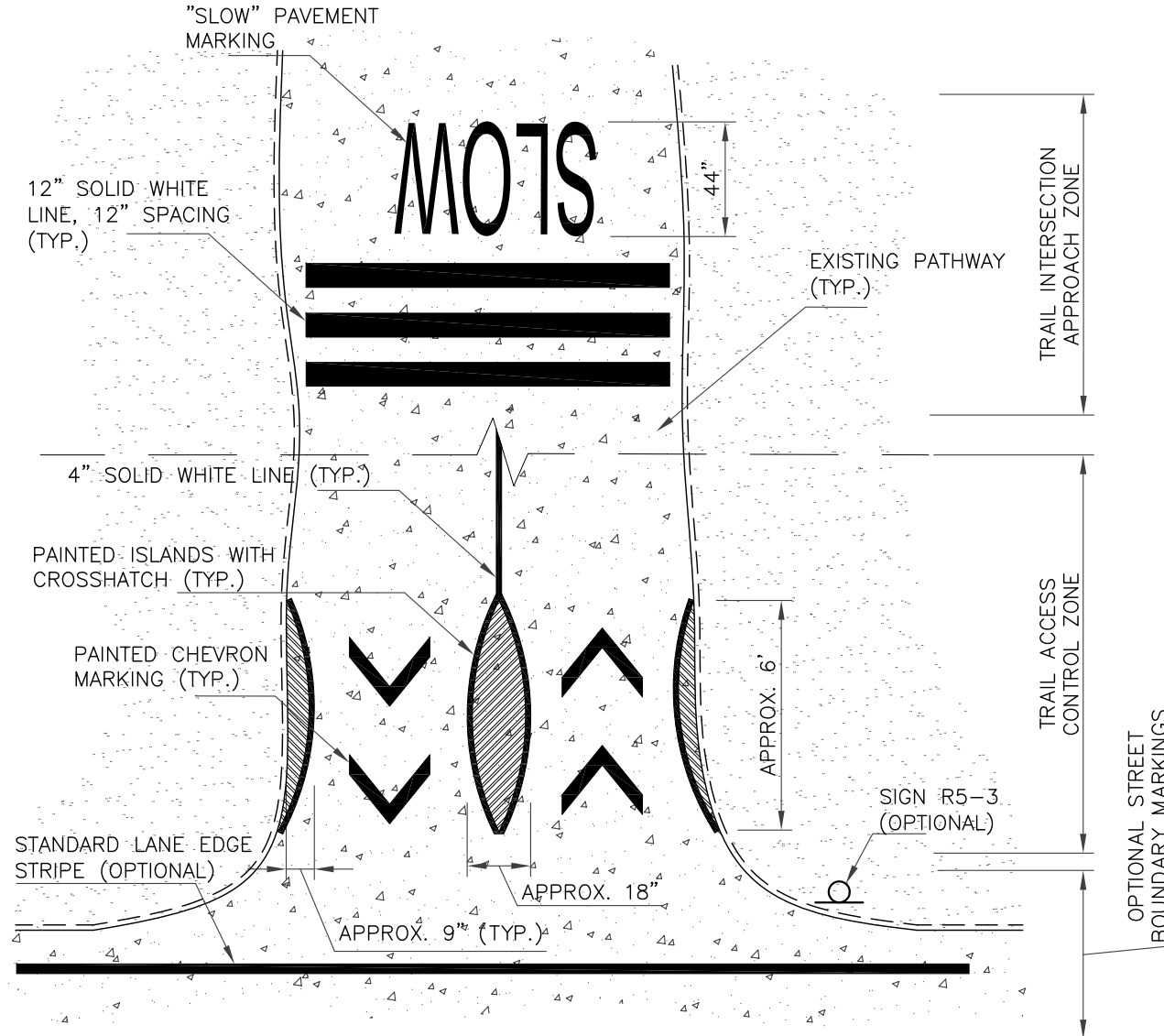
DATE: DEC 7, 2016

SHEET NAME:
BOLLARD REMOVAL
REPLACMENT ALTERNATE
DRAWING NUMBER
RA.1
SHEET NUMBER

03 OF 06

Alternate Treatment 2 - Painted Directional Access Point

OPTIONAL SIGN
(MUTCD R5-3)



NOTES:

- FEATURES SHOWN ARE REPRESENTATIONAL ONLY AND DO NOT DEPICT A SPECIFIC LOCATION OR SPECIFIC DESIGN DETAILS.
- DIAGRAM IS SCHEMATIC ONLY, SHOWING APPROXIMATE RELATIONSHIP OF EXISTING FEATURES AND DESIGN ELEMENTS. ACTUAL DESIGN TO BE DETERMINED DURING PROJECT DEVELOPMENT.
- DIAGRAM AND FEATURES SHOWN ARE NOT DRAWN TO SCALE.
- NOTE DIRECTION OF CROSSHATCHING IN PAINTED ISLANDS – SHOULD SWEEP IN DIRECTION OF FLOW OF PATH TRAFFIC.
- LANE EDGE STRIPING ALONG ADJACENT ROADWAY IS OPTIONAL. SIGN R5-3 IS ALSO OPTIONAL. USE OF THESE FEATURES TO BE DETERMINED DURING PROJECT DESIGN.
- DISTANCE BETWEEN TRAIL ACCESS POINT AND "SLOW" SYMBOL VARIES BY SPECIFIC TRAIL GEOMETRY AT EACH LOCATION, TO BE DETERMINED DURING PROJECT DESIGN.

FIGURE DEVELOPED FOR COST ESTIMATING PURPOSES ONLY
-- NOT A DESIGN --
NOT FOR CONSTRUCTION



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I-90 Trail - Bollards
 MERCER ISLAND PARKS
 MERCER ISLAND, WA

ALTERNATIVE ACCESS
 CONTROL FEATURES,
 OPTION 2
 PAVEMENT MARKING 2
 NOT FOR CONSTRUCTION
 DATE: OCT 24, 2016

SHEET NAME:
 BOLLARD REMOVAL
 REPLACEMENT ALTERNATE
 DRAWING NUMBER
RA.2
 SHEET NUMBER
04 OF 06

Alternate Treatment 3 - Painted Access Point, Basic

OPTIONAL SIGN
(MUTCD R5-3)



NOTES:

- FEATURES SHOWN ARE REPRESENTATIONAL ONLY AND DO NOT DEPICT A SPECIFIC LOCATION OR SPECIFIC DESIGN DETAILS.
- DIAGRAM IS SCHEMATIC ONLY, SHOWING APPROXIMATE RELATIONSHIP OF EXISTING FEATURES AND DESIGN ELEMENTS. ACTUAL DESIGN TO BE DETERMINED DURING PROJECT DEVELOPMENT.
- DIAGRAM AND FEATURES SHOWN ARE NOT DRAWN TO SCALE.
- LANE EDGE STRIPING ALONG ADJACENT ROADWAY IS OPTIONAL. SIGN R5-3 IS ALSO OPTIONAL. USE OF THESE FEATURES TO BE DETERMINED DURING PROJECT DESIGN.
- USE OF ZIG-ZAG CENTERLINE IS OPTIONAL; USE AT LOCATIONS WHERE LONG STRAIGHT STRETCH OF TRAIL APPROACHES ACCESS POINT.

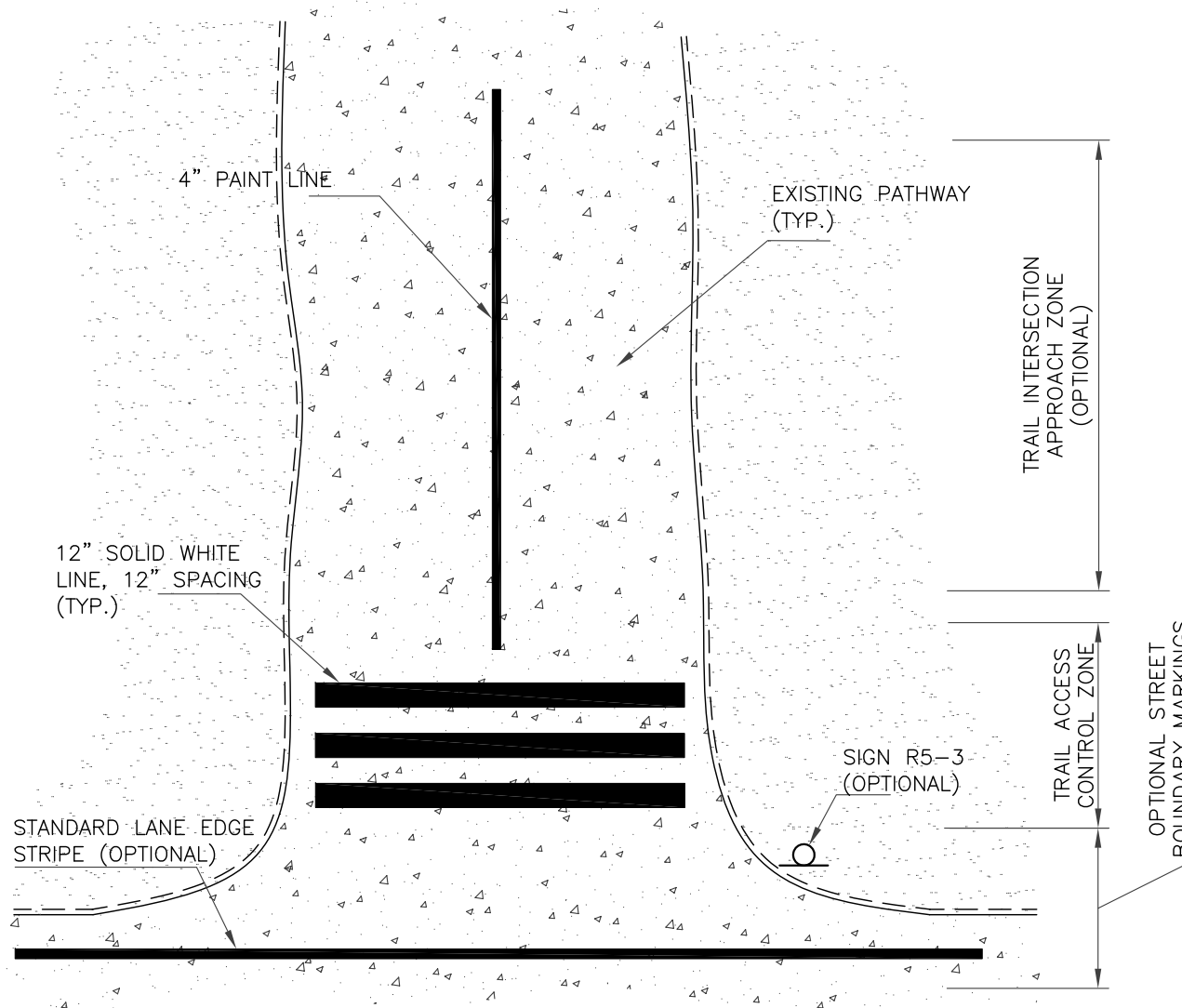


FIGURE DEVELOPED FOR COST
ESTIMATING PURPOSES ONLY
-- NOT A DESIGN --
NOT FOR CONSTRUCTION



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I-90 Trail - Bollards

MERCER ISLAND PARKS
MERCER ISLAND, WA

ALTERNATIVE ACCESS
CONTROL FEATURES,
OPTION 3
BASIC MARKING

NOT FOR CONSTRUCTION

DATE: DEC 7, 2016

SHEET NAME:
BOLLARD REMOVAL
REPLACEMENT ALTERNATE

DRAWING NUMBER

RA.3

SHEET NUMBER

05 OF 06

"SLOW" PAVEMENT
MARKING

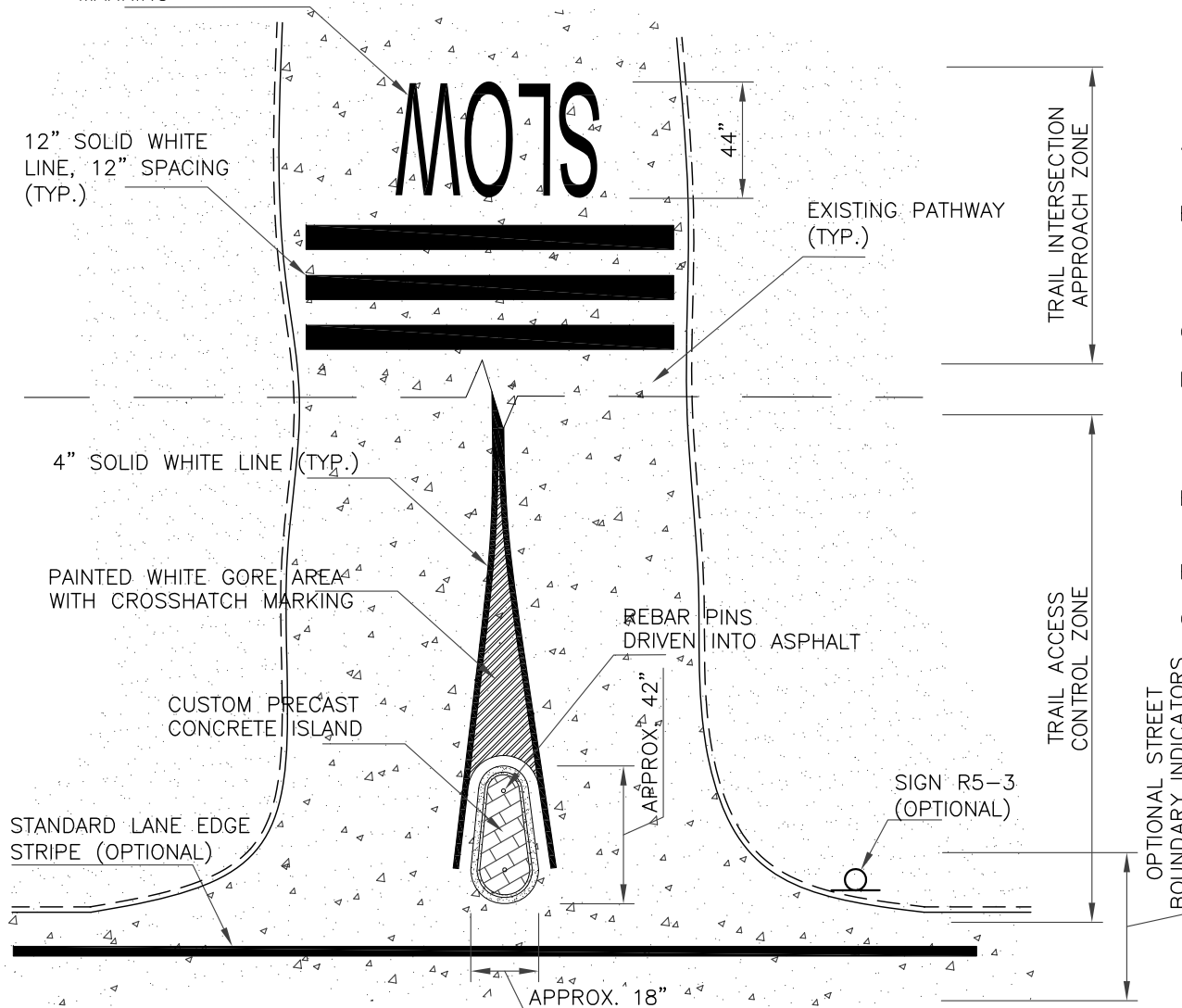
Alternate Treatment 4 - Paint and Raised Island Access Point

OPTIONAL SIGN
(MUTCD R5-3)



NOTES:

- FEATURES SHOWN ARE REPRESENTATIONAL ONLY AND DO NOT DEPICT A SPECIFIC LOCATION OR DESIGN DETAILS.
- DIAGRAM IS SCHEMATIC ONLY, SHOWING APPROXIMATE RELATIONSHIP OF EXISTING FEATURES AND DESIGN ELEMENTS. ACTUAL DESIGN TO BE DETERMINED DURING PROJECT DEVELOPMENT.
- DIAGRAM AND FEATURES SHOWN ARE NOT DRAWN TO SCALE.
- LANE EDGE STRIPING ALONG ADJACENT ROADWAY IS OPTIONAL. SIGN R5-3 IS ALSO OPTIONAL. USE OF THESE FEATURES TO BE DETERMINED DURING PROJECT DESIGN.
- DISTANCE BETWEEN TRAIL ACCESS POINT AND "SLOW" SYMBOL VARIES BY SPECIFIC TRAIL GEOMETRY AT EACH LOCATION.
- CUSTOM PRECAST CONCRETE ISLAND TO INCLUDE BEVELED OUTER CURB FACE.
- CUSTOM PRECAST CONCRETE ISLAND HELD IN PLACE BY TWO REBAR PINS DRIVEN INTO EXISTING OR PATCHED ASPHALT. ISLAND DESIGNED TO BE REMOVABLE WITH A SMALL BACKHOE OR FORKLIFT.



**FIGURE DEVELOPED FOR COST
ESTIMATING PURPOSES ONLY
-- NOT A DESIGN --
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MERCER ISLAND PARKS
MERCER ISLAND, WA

ALTERNATIVE ACCESS
CONTROL FEATURES,
OPTION 4
RAISED ISLAND
NOT FOR CONSTRUCTION
DATE: OCT 24, 2016

SHEET NAME:
BOLLARD REMOVAL
REPLACEMENT ALTERNATE
DRAWING NUMBER
RA.4
SHEET NUMBER
06 OF 06

APPENDIX D

Planning-Level Construction Cost Estimate

CLIENT	MERCER ISLAND PARKS DEPARTMENT			DATE:	12/7/2016
PROJECT	I-90 TRAIL - BOLLARD ALTERNATE TREATMENTS COMPLETE ESTIMATE			PLANNING-LEVEL COST ESTIMATE	
				PREPARED BY: TOOLE DESIGN GROUP	
ITEM NO.	BID ITEM	UNIT	UNIT COST	TOTAL QUANTITY	TOTAL COST
0001	MOBILIZATION (20% of sum of remaining construction costs)	LS	\$ 3,333.00	1	\$ 3,333.00
6992	TRAFFIC CONTROL LABOR	HR	\$ 60.00	76	\$ 4,560.00
6982	CONSTRUCTION SIGNS CLASS A	SF	\$ 30.00	27	\$ 810.00
					\$ -
--	ALTERNATE TREATMENT #2 - NO ADDED STRIPE, NO ADDED SIGN - 3 LOCATIONS	EST	\$ 800.00	3	\$ 2,400.00
--	ALTERNATE TREATMENT #2 - ADDED STRIPE, NO ADDED SIGN - 1 LOCATION	EST	\$ 900.00	1	\$ 900.00
--	ALTERNATE TREATMENT #2 - ADDED STRIPE, ADDED SIGN - 3 LOCATIONS	EST	\$ 1,060.00	3	\$ 3,180.00
					\$ -
--	ALTERNATE TREATMENT #3 - NO ADDED STRIPE, NO ADDED SIGN - 5 LOCATIONS	EST	\$ 200.00	5	\$ 1,000.00
--	ALTERNATE TREATMENT #3 - ADDED STRIPE, NO ADDED SIGN - 1 LOCATION	EST	\$ 300.00	1	\$ 300.00
--	ALTERNATE TREATMENT #3 - NO ADDED STRIPE, ADDED SIGN - 2 LOCATIONS	EST	\$ 360.00	2	\$ 720.00
--	ALTERNATE TREATMENT #3 - ADDED STRIPE, ADDED SIGN - 1 LOCATION	EST	\$ 460.00	1	\$ 460.00
					\$ -
6806	PAINT LINE (1 LOCATION WITH ONLY PAINT LINE, 1 LOC. W/ THREE 40' 12" STRIPES)	LF	\$ 1.00	460	\$ 460.00
6857	PLASTIC CROSSWALK LINE (1 LOCATION W/ NEW 25' X 10' CROSSWALK)	SF	\$ 15.00	125	\$ 1,875.00
					\$ -
					\$ -
					\$ -
					\$ -
					\$ -
					\$ -
					\$ -
					\$ -
					\$ -
					\$ -
					\$ -
					\$ -
					\$ -
					\$ -
					\$ -
					\$ -
	PLANNING-LEVEL CONTINGENCY ON CONSTRUCTION COSTS (5% of sum of remaining construction costs)	N/A	\$ 759.15	1	\$ 760.00
					\$ -
	CONSTRUCTION MATERIALS SUBTOTAL				\$ 20,758.00
					\$ -
	CONSTRUCTION ADMINISTRATION/ENGINEERING	10%	\$ 2,076.00	1	\$ 2,076.00
					\$ -
	CONSTRUCTION CONTINGENCY	10%	\$ 2,076.00	1	\$ 2,076.00
					\$ -
				TOTAL COST	\$ 25,000.00

APPENDIX G

CONFLICT AREA STUDY

Mercer Island I-90 Trail

Bicycle and Pedestrian Conflict Areas Evaluation and Recommendations

July 24, 2017

Purpose

The purpose of this memo is to identify possible treatments for two locations being evaluated to improve conflict areas on the I-90 Trail, at the Mercer Island Park and Ride and at Aubrey Davis Park. TDG met with City staff on site several times to assess conditions and discussed solutions. A description of the locations, treatments considered, and final recommendations follows, along with planning-level cost estimates.

Mercer Island Park and Ride – Analysis and Treatment Recommendations

Concerns:

Pedestrians and people riding bikes share the same space at this sidewalk transit stop, which also serves as a segment of trail, and provides access to the park and ride parking area. Safety, predictability, and comfort for all users is currently compromised.

Looking at all possible options, the team assessed which elements within the space could be moved and which cannot to determine possible solutions to resolve bike/ped conflicts.

Fixed Objects:

- Trees
- Light poles
- Planters
- Wall separating parking lot and sidewalk/trail

Movable Objects:

- Bike lockers
- Bike racks
- Bus shelters
- Bus schedule kiosk
- Garbage cans
- Benches
- Newspaper boxes



Figure 1. Park and Ride, existing conditions

Potential Treatments:

The following treatments were considered and evaluated.

1. Delineation of the bike and pedestrian spaces using:
 - Green thermoplastic/epoxy/paint
 - Detectable separation indicators delineating bicycle and pedestrian space
2. Creating more space for bicyclists by shifting the location of the streetscape elements, including bus shelters, trash receptacle, the information kiosk, etc. closer to the street
3. Creating raised crossings at driveways to increase predictability and visibility at driveways, and enhance awareness of bicyclists by drivers entering/exiting parking area

Example Treatments:



Figure 2. Example showing colored/textured pavement used to demarcate bike and pedestrian travel ways (Brazil)



Figure 3. Example showing grouping of bus shelters and pedestrian amenities into pedestrian space and contrasting paving for bike travel way (Europe)



LEFT: Figure 4. Example showing bike/pedestrian symbols in shared travel way (Portland)

ABOVE: Figure 5. Example of bike and pedestrian space demarcated by detectable separation indicators (Seattle)

Final Recommendations

- Shift the bus shelters, associated signs, kiosk, and trash receptacles toward the curb to provide more operating space for all users. Maintain adequate clearance from the curb for bus access and around the shelter to allow for universal access of the bus loading areas. In relocation, take the opportunity shift the shelters laterally to provide more visual clearance, such as where the southern shelter is located opposite the corner of the garage wall, creating a pinch point.
- Indicate a separate travel way for bikes within the sidewalk, using a green paving, thermoplastic or MMA (see [NATCO Urban Bikeway Design](#) for specifications) along the length of the sidewalk, 6' minimum from the back of sidewalk. The green paving should run from driveway to driveway, and it can be extended to 77th Ave SE and 81st Ave SE
- At driveways, provide a distinctive treatment, along with SLOW messaging for bikes.
- Reinforce the messaging with thermoplastic bicycle and pedestrian symbols placed at regular and strategic intervals along both the pedestrian and bicycle travel ways
- Consider using crosswalks where pedestrians emerge from the parking area, potentially unaware that they may be crossing paths with people riding bikes.
- Install a raised crossing at the primary entry to the park and ride.

Aubrey Davis Park – Analysis and Treatment Recommendations

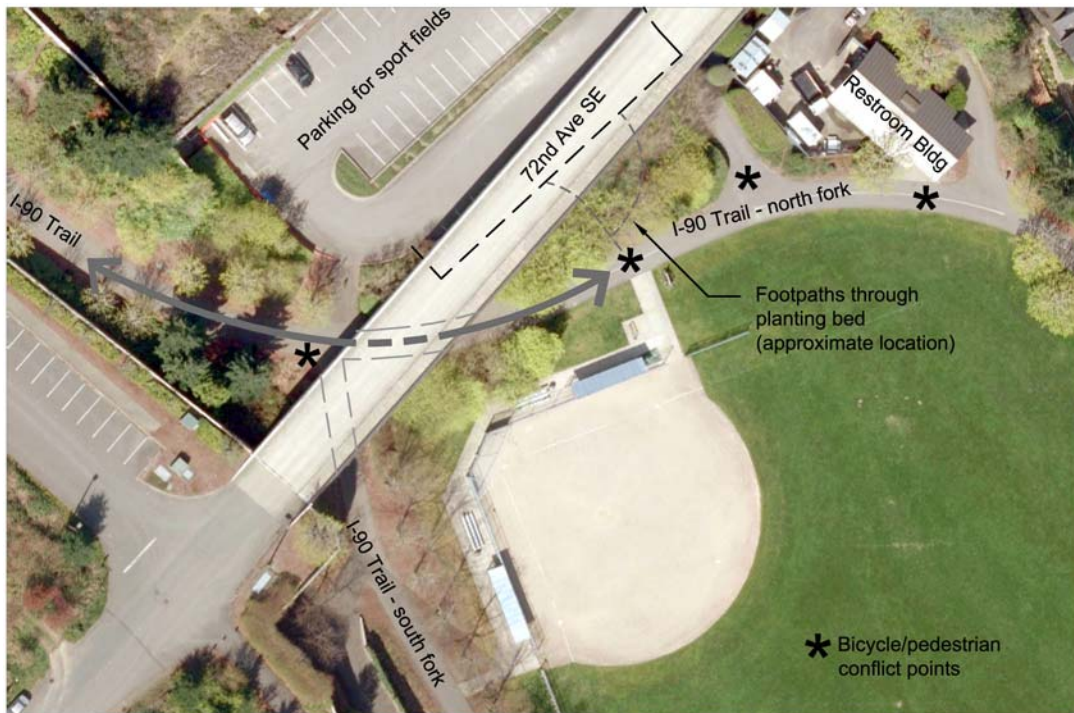


Figure 6. Existing bicycle route and conflict points

Concern #1:

Bicycle/pedestrian conflicts result from eastbound cyclists entering the park after descending a steep grade on a horizontal curve, and then traveling along the pedestrian entrance/gathering area/spectator seating on the west edge of the park's ball fields, as shown in Figure 6.

Concern #2:

Cyclists stopping to use the park's restroom and drinking fountain are pausing in the trail, causing conflicts with through traffic. During peak summer usage, there can be many cyclists stopped at the restroom facilities, but there is little bicycle parking available at the site and the facilities are immediately adjacent to the relatively narrow trail.

Concern #3:

Foot traffic to and from the parking lot on the park's west side has worn informal paths through the planting bed between the park and the parking lot.

Potential Treatments:

The following treatments were considered and evaluated.

- Revising the trail to divert users from the primary conflict area
- Using traffic calming treatments to slow bicyclists approaching the conflict area
- Creating a plaza-like area adjacent to the parking lot to give trail and park users more room to negotiate with one another

- Using a special paving treatment to enhance plaza effect
- Remove/revise plantings between parking area and park to enhance visibility and facilitate more predictable movement through the area

Final Recommendations

1. Re-route bicycle traffic to bypass pedestrian gathering areas (revise trail layout at 72nd Ave SE overpass so that eastbound bicycles are routed along the park's south edge, and must make a soft left turn if they wish to travel along the park's west edge). This re-route is shown in Figure 7.
2. Apply pavement markings for visual and tactile effect to: a) slow bicycle traffic entering the park from the west, and b) delineate pedestrian crossings and areas with high foot traffic (see Figure 6).
3. Wayfinding signs should be added to reinforce use of the new route. Potential locations include the location of proposed trail revision within Aubrey Davis Park (to guide both eastbound and westbound traffic), and the south and north ends of the 76th Ave SE overpass (to route bicycle traffic to/from the I-90 trail alignment on the freeway's south side).
4. This proposed route would require a transition from the 12'-wide trail entering the park's west side to the 10'-wide trail on the park's south side.

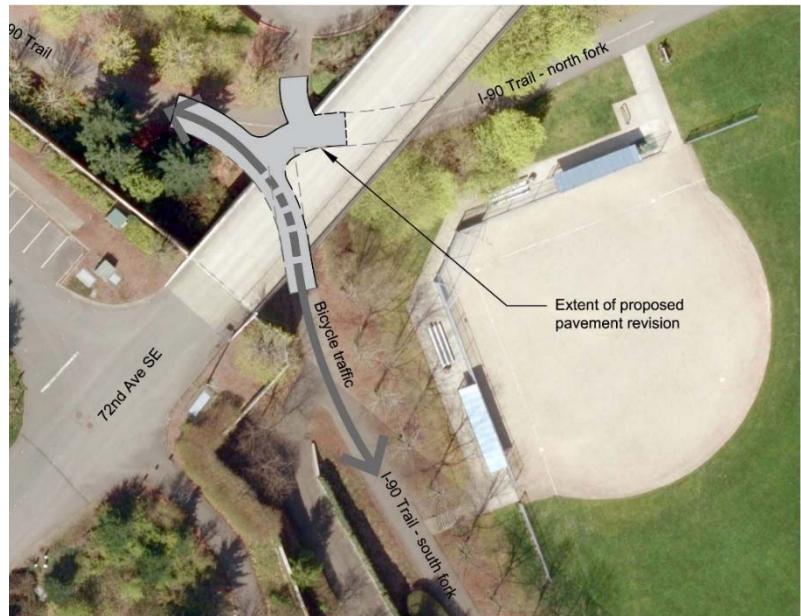


Figure 7. Pavement revised to route bicycle traffic to park's south edge

5. Remove low plantings between the parking areas the park, converting the space to compacted crushed rock (or pavement) to provide a mixing zone.
6. Widen out the pathway and create a larger mixing zone, demarcated with a painted pattern to set the space off visually (see Figure 8).



Figure 8. Example of painted mural along a trail. (Charlotte Rail Trail) SOURCE: <http://www.charlotterailtrail.org/projects/jessie-katey>

Mercer Island Bike-Ped Conflict Study

Planning Level Cost Estimates

7/24/2017

By: Jakob Ward and Kristen Lohse

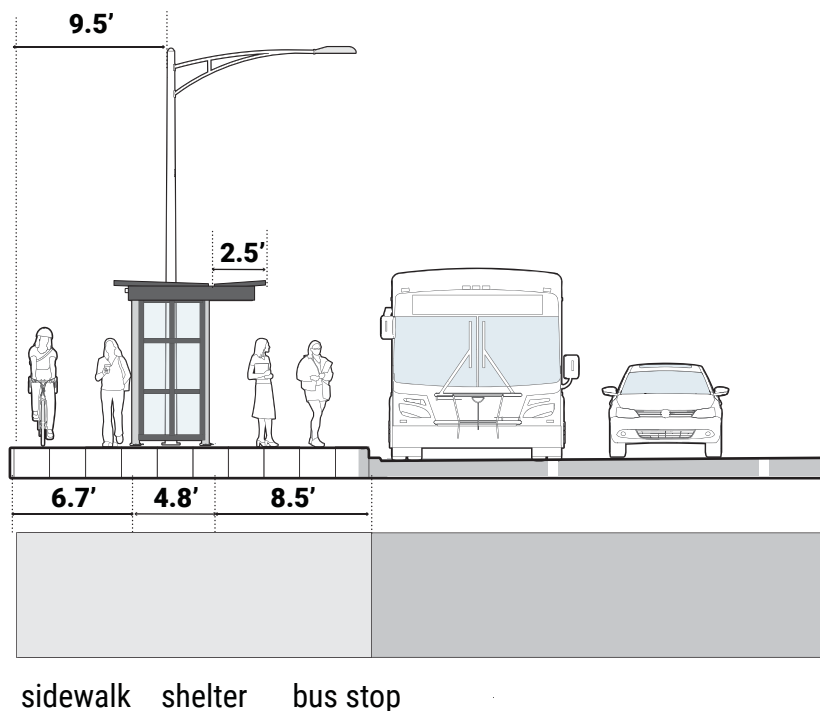
Checked by: Craig Schoenberg, P.E. and Kenneth Loen, P.E.

Park and Ride					
Item	Unit	Unit Cost	QTY	TOTAL	SUM
Striping					\$ 12,140
Thermoplastic Pavement Marking Lines (4")	LF	\$1	100	\$100	
Thermoplastic Pavement Marking Bicyclist Symbol	EA	\$880	7	\$6,160	
Thermoplastic Pavement Marking Pedestrian Symbol	EA	\$880	6	\$5,280	
MMA SLOW Legend	EA	\$150	2	\$300	
MMA LOOK Legend	EA	\$150	2	\$300	
Relocation					\$ 5,500
Bus Stop Relocation	EA	\$2,000	2	\$4,000	
Street Furniture Relocation	EA	\$500	3	\$1,500	
81st Ave NE Raised Crossing	SF		940		\$ 12,960
Site Preparation (Sawcut, Demo, Excavation)	CY	\$ 100	70	\$ 7,000	
Aggregate Base Course	CY	\$ 40	35	\$ 1,400	
Asphalt Base Course	TON	\$ 70	36	\$ 2,520	
Asphalt Surface Course	TON	\$ 85	24	\$ 2,040	
N Mercer Way Crossing	EA				\$ 11,680
Site Preparation (Sawcut, Demo, Excavation)	CY	\$ 100	30	\$ 3,000	
Construct sidewalk	SY	\$ 100	15	\$ 1,500	
Curb ramp	EA	\$ 7,000	1	\$ 7,000	
Crosswalk striping	LF	\$ 1	180	\$ 180	
Signage					\$ 2,000
Sign Panel (Class I)	EA	\$ 150	8	\$ 1,200	
Steel Sign Post (2x2 Inch Tubing)	EA	\$ 100	8	\$ 800	
					\$ 44,280
Green Pavement Markings					
Option 1 - Paint	SF	\$ 2	2500	\$ 5,000	
Option 2 - Thermoplastic	SF	\$ 7	2500	\$ 17,500	
Option 3 - MMA or DLPM	SF	\$ 10	2500	\$ 25,000	
TOTALS					
With Option 1 surfacing					\$ 49,280
With Option 2 surfacing					\$ 61,780
With Option 3 surfacing					\$ 69,280

Aubrey Davis Park					
Item	Unit	Unit Cost	QTY	TOTAL	
Striping					\$410
Thermoplastic Pavement Marking Lines	LF	\$1	110	\$110	
MMA SLOW Legend	EA	\$150	2	\$300	
Physical Construction					
Revise paving to reroute bicycle traffic	SF		1050		\$ 14,548
Site Preparation (Sawcut, Demo, Excavation)	CY	\$ 100	77	\$ 7,700	
Aggregate Base Course	CY	\$ 40	39	\$ 1,560	
Asphalt Base Course	TON	\$ 70	39	\$ 2,730	
Asphalt Surface Course	TON	\$ 85	26	\$ 2,210	
Geotextile Filter Cloth	SY	\$ 3	116	\$ 348	
Remove low-growing shrubs/groundcovers near parking areas and replace with compacted crushed rock or pavement	SF		2900		\$ 4,300
Remove Shrubs/Groundcover	CY	\$ 20	107	\$ 2,140	
Compacted Crushed Rock	CY	\$ 40	54	\$ 2,160	
Sawcut and create new plaza area, paved in asphalt or concrete, with stamped/painted pattern	SF		4800		\$ 90,445
Site Preparation (Sawcut, Demo, Excavation)	CY	\$ 75	356	\$ 26,700	
Aggregate Base Course	CY	\$ 40	178	\$ 7,120	
Asphalt Base Course	TON	\$ 70	182	\$ 12,740	
Concrete Surface Course	TON	\$ 85	121	\$ 10,285	
Painted	SF	\$ 7	4800	\$ 33,600	
Signage					\$ 1,000
Sign Panel (Class I)	EA	150	4	\$ 600	
Steel Sign Post (2x2 Inch Tubing)	EA	100	4	\$ 400	
TOTAL					\$ 110,703

EXISTING CONDITION*
looking east

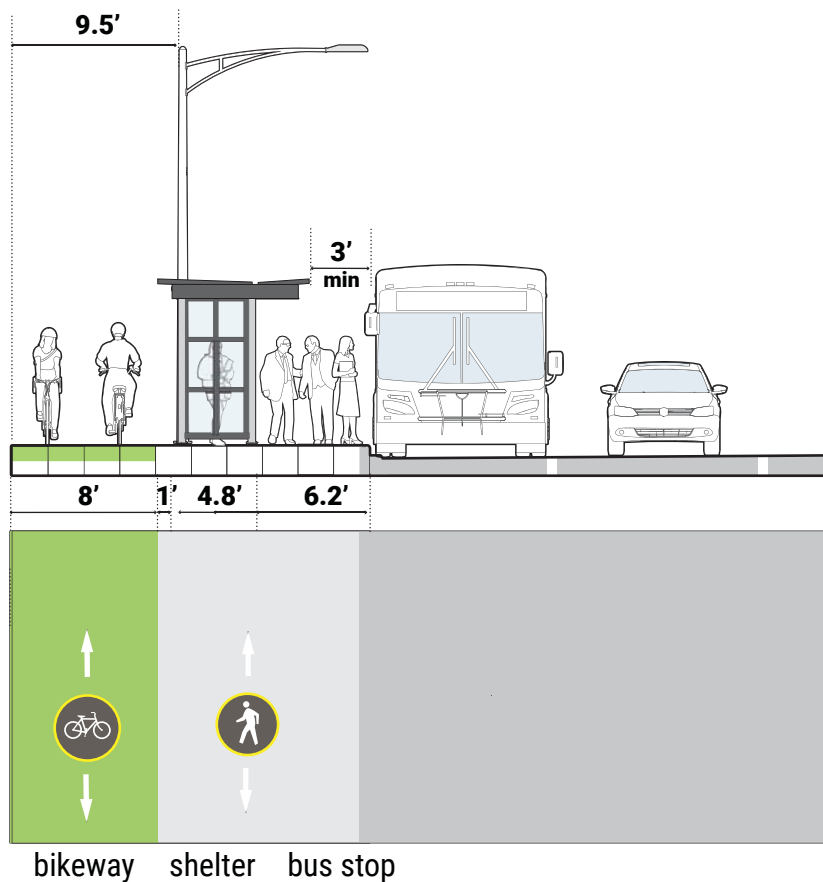
*Dimensions are approximate

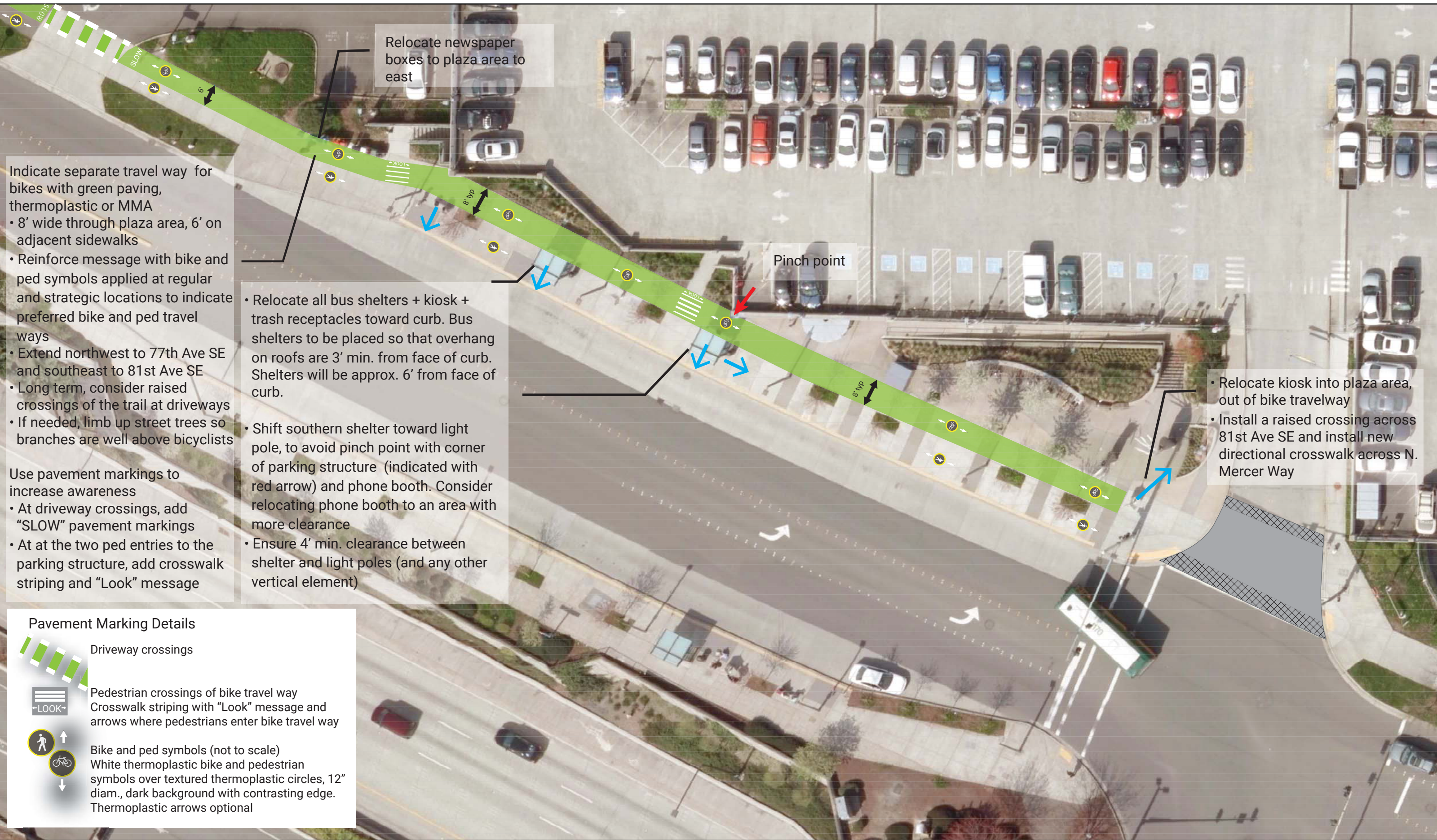


PROPOSED CROSS SECTION*
looking east

- Shift transit shelters and associated amenities toward curb
- Demarcate 8' (typ). bike travelway
- 3' min. clearance between bus and shelter roof/overhang is critical dimension. Adjust bikeway dimension as required to maintain 3' clearance

*Dimensions are approximate





Indicate separate travel way for bikes with green paving, thermoplastic or MMA

- 8' wide through plaza area, 6' on adjacent sidewalks
- Reinforce message with bike and ped symbols applied at regular and strategic locations to indicate preferred bike and ped travel ways
- Extend northwest to 77th Ave SE and southeast to 81st Ave SE
- Long term, consider raised crossings of the trail at driveways
- If needed, limb up street trees so branches are well above bicyclists

Use pavement markings to increase awareness

- At driveway crossings, add "SLOW" pavement markings
- At the two ped entries to the parking structure, add crosswalk striping and "Look" message




Relocate newspaper boxes to plaza area to east

- Relocate all bus shelters + kiosk + trash receptacles toward curb. Bus shelters to be placed so that overhang on roofs are 3' min. from face of curb. Shelters will be approx. 6' from face of curb.
- Shift southern shelter toward light pole, to avoid pinch point with corner of parking structure (indicated with red arrow) and phone booth. Consider relocating phone booth to an area with more clearance
- Ensure 4' min. clearance between shelter and light poles (and any other vertical element)

Pinch point

- Relocate kiosk into plaza area, out of bike travelway
- Install a raised crossing across 81st Ave SE and install new directional crosswalk across N. Mercer Way

Pavement Marking Details

-  Driveway crossings
-  Pedestrian crossings of bike travel way
Crosswalk striping with "Look" message and arrows where pedestrians enter bike travel way
-  Bike and ped symbols (not to scale)
White thermoplastic bike and pedestrian symbols over textured thermoplastic circles, 12" diam., dark background with contrasting edge. Thermoplastic arrows optional



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

7.24.2017

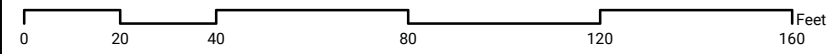


City of Mercer Island
Aubrey Davis Park

Mercer Island
I-90 Trail
SCHEMATIC DESIGN FOR BIKE-PED CONFLICT AREAS

NOT FOR CONSTRUCTION

1 in = 40 ft



Date: 3/2/2017

User: balmdale

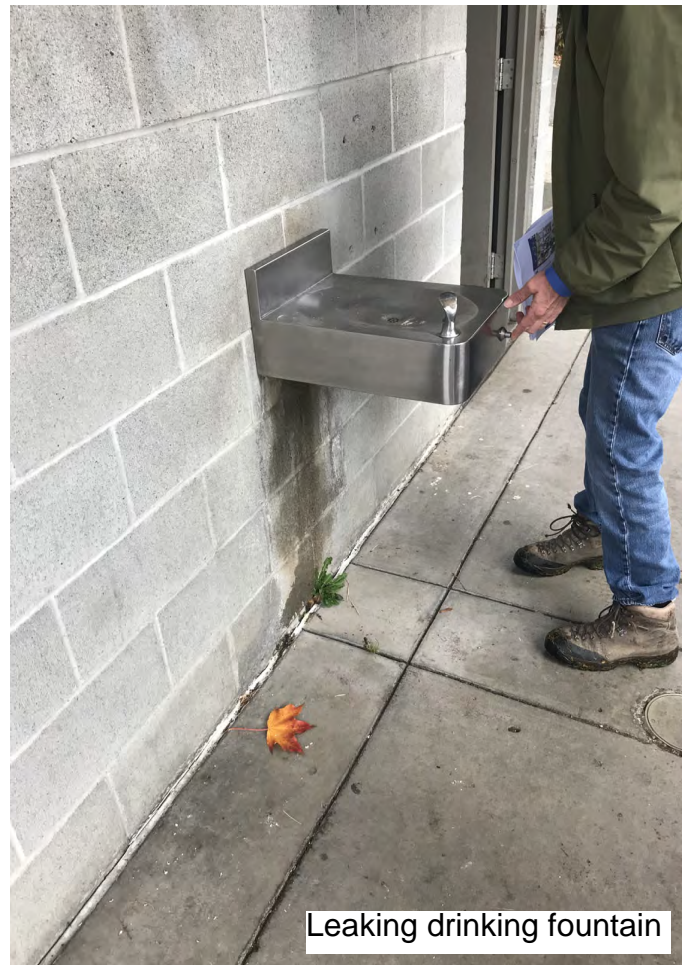
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APPENDIX H

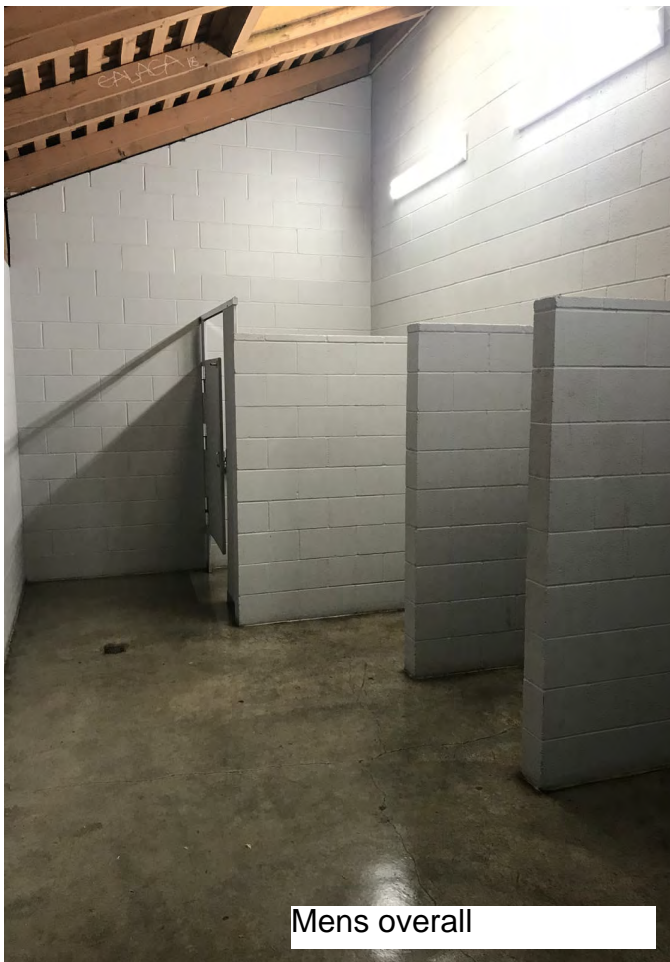
FACILITIES ASSESSMENT



Graffiti in restroom



Leaking drinking fountain



Mens overall



Mildew roof



Picnic Shelter overall



Slipping battens

City of Mercer Island
Aubrey Davis Park Master Plan
Facility Condition Assessment

GENERAL

On October 17, 2018 representatives from Rolluda Architects conducted a site visit to Aubrey Davis Park for the purpose of conducting a facility assessment of the existing restroom and picnic shelter structures. They were accompanied by Paul West, Interim Director/Parks Superintendent for the City of Mercer Island, who provided anecdotal history for the performance of the structures.

DESCRIPTION OF BUILDINGS

Restroom

The restroom building construction consists of a concrete slab-on-grade, concrete masonry unit walls (CMU) up to 8 feet high on the exterior walls and up to roof structure on the interior walls, built-up wood roof structure with a batten seam metal roof. The exterior walls above the CMU are framed with 4x4 posts at 4 feet on center with cedar louvered infill panels in between the posts. The built-up roof structure consists of 4x8 rafters at 4 feet on-center with 2x6 sandwiched on either side. 2x4 purlins at 1 foot on-center are layered perpendicular to the rafters and another layer of 1x4 purlins at 1 foot on-center lie perpendicular to the 2x4s. Plywood sheathing and a batten seam metal roof form the final layers of the roof. There is a fiberglass sandwiched skylight over each restroom space. The ceiling in the restroom areas is exposed to roof structure while the storage/shop area and pipe chase have a plywood ceiling at the 8 foot height with attic space above. Programmatically, the building accommodates a men's restroom, women's restroom, pipe chase, and a maintenance storage/shop area.

The interior of the restrooms consists of a sealed concrete floor slab, painted CMU walls, and stained wood structure ceiling. The restrooms, storage/shop area, and the pipe chase have painted hollow metal doors and door frames. The restrooms are equipped with stainless steel plumbing fixtures: 1 sink, 2 urinals, and 1 water closet on the men's side; 1 sink, 3 water closets on the women's side. The urinal screens and the side walls of the toilet partitions are constructed with 6-foot-high CMU, while the fronts of the toilet partitions are floor-mounted, overhead-braces partition walls. There is a wall-hung stainless steel drinking fountain on the exterior wall between the entries to the restrooms.

The building is unheated except for a small ceiling-hung unit heater in the corner of the storage/shop area.

Picnic Shelter

The picnic shelter construction consists of a concrete slab-on-grade, 6 concrete columns up to 8 feet high at the perimeter, built-up wood roof structure with a batten seam metal roof. The built-

up roof structure consists of double 2x beams running the length of the structure and double 2x cross beams at each column, 4x8 rafters at 4 feet on-center with 2x6 sandwiched on either side. 2x4 purlins at 1 foot on-center are layered perpendicular to the rafters and another layer of 1x4 purlins at 1 foot on-center lie perpendicular to the 2x4s. Plywood sheathing and a batten seam metal roof form the final layers of the roof.

There is a 2-foot-high concrete wall centered along the column at 2 sides of the shelter. There are 4 fixed picnic tables beneath the roof structure. The tables have a center painted steel structure that supports the table and 4 cantilevered benches. Each table can accommodate up to 8 people.

BUILDING ASSESSMENT

Restroom

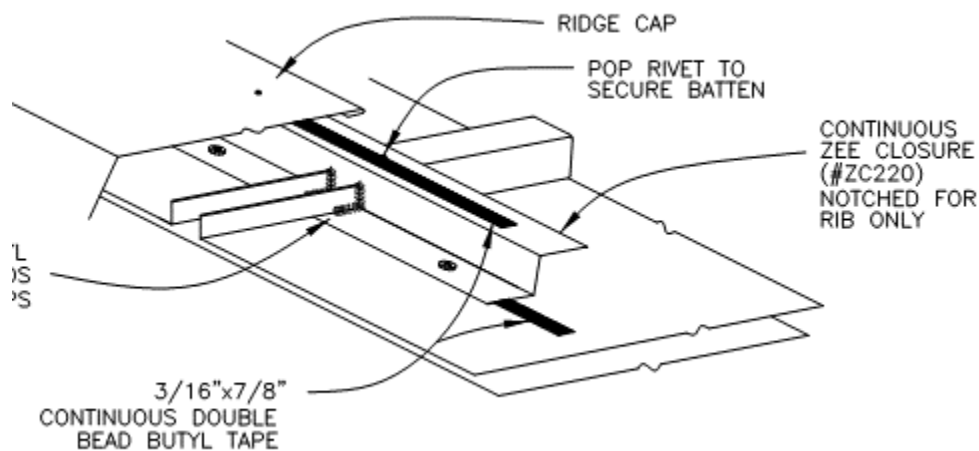
The building appears to have been well maintained but is showing its age, which is estimated to be close to 30 years old. The concrete slab is in good shape with only minor cracking, probably due to the initial shrinkage when the slab was poured.

The CMU wall are also in good condition and well maintained. It appears that if any graffiti appears, the City addresses it relatively quickly. Pressure washing the CMU and resealing it could freshen up the appearance.

The wood structure is in good condition, with only limited areas that show signs of deterioration due to weather exposure. This is likely due to the generous overhangs that protect the wood for the most part. There is some water staining around skylights, but it wasn't clear if it is an ongoing issue or one that has already been addressed. There was one area on a rafter in the men's room that had graffiti. The wood could be cleaned per Master Painters Institute's (MPI) MPI RSP-13, and 2 and refinished with a suitable sealer, and mildew growth should be treated as outlined in MPI RSP-9. There is also a certain beauty to the natural patina of the wood.

The hollow metal doors and door frames are in fair condition. The large double doors to the storage/shop area have been dented along the lower half and appear to sag slightly in the center due to the width of each leaf (wider gap at the bottom of the door at the meeting stiles). If the door is binding, replacement should be considered. Weather stripping along the bottom of the door is torn and should be replaced.

There are several battens on the roof that have slipped down, exposing the roof panel joints. The exposed joints are a point for water entry, so this condition should be addressed immediately. There should be a "Z" closure strip covered by the ridge cap. The batten should be attached to this closure strip, holding them in place. The specific detail should be confirmed with the roof manufacturer.



Mildew growth on the metal roof should be removed according to manufacturer's instructions to prolong the life of the finish.

The drinking fountain is leaking and the water is staining the CMU beneath the fixture. Due to the leak water doesn't reach the fountain spout.

Picnic Shelter

The structure appears to have been well maintained but is showing its age which, like the restroom, is estimated to be close to 30 years old. The concrete slab is in good shape with only minor cracking, probably due to the initial shrinkage when the slab was poured.

The concrete columns are in good condition.

The wood structure is in good condition, with only limited areas that show signs of deterioration due to weather exposure. There are some water stains around eaves that appear to be caused by a current ongoing issue. The source of the water should be identified immediately and the issue remedied, or further deterioration of the wood structure will occur. The wood could be cleaned per Master Painters Institute's (MPI) MPI RSP-13, and 2 and refinished with a suitable sealer, and mildew growth should be treated as outlined in MPI RSP-9.

There are several battens on the roof that have slipped down, exposing the roof panel joints. The exposed joints are a point for water entry, so this condition should be addressed immediately. There should be a "Z" closure strip covered by the ridge cap. The batten should be attached to this closure strip, holding them in place. The specific detail should be confirmed with the roof manufacturer.

APPENDIX I

ARTS & CULTURE VISION DOCUMENT

A New Vision for Arts and Culture in Aubrey Davis Park

Since its creation, the “Park on the Lid”, or Aubrey Davis Park, has been a primary location for Islanders to engage with arts and culture. As the I-90 construction neared completion in 1991, the city formed an I-90 ARTway Task Force to identify and implement public art opportunities throughout the corridor. Today, the park features nearly 25% of the City’s public art collection, stretching from *Playful Pup* by Gary Lee Price at the west end to *Gift of Reflection*, a steel sculpture by David Govedare at the east boat launch.

The first phase of public art opportunities in the park opened in 1995 as the I-90 Outdoor Sculpture Gallery. The new gallery was intended to enhance the Town Center portion of the park with public art and to enrich the Island’s sense of community.

In 1998 the I-90 ARTway Task Force and Mercer Island Arts Council published a vision statement for the I-90 Sculpture Gallery. The vision emphasized enhancing open spaces, celebrating the unique landscape opportunity, and providing positive public art experiences for the broadest possible audience. The first keystone sculpture, *Primavera II* by Roslyn Mazzilli, was acquired through donations and grants, demonstrating the community’s commitment to public art.

The gallery was renamed the Greta Hackett Outdoor Sculpture Gallery in 2017 in honor of the long-time Island resident who was integral in founding the arts space. The gallery showcases more than a dozen works of art and remains a focal point of the arts experience in Aubrey Davis Park.

Building on this rich history of providing positive public art opportunities in Aubrey Davis Park and recognizing that the park itself has become a treasured cultural resource in the community, the Mercer Island Arts Council has set forth this updated vision for art in the park:

Create and strengthen community connections through arts and culture.

Be it landscape art or interpretive signage, sound installation, or seasonal foliage, this vision reflects a broader plan to use arts and culture to deepen community connections to the park. This document elaborates on this vision by outlining four tenets to guide how arts and culture can create and maintain a sense of place in Aubrey Davis Park.

Tenets

1. Provide welcoming and inclusive spaces to express and experience creativity.
2. Experience nature and art through all seasons.
3. Cultivate an art-inspired environment.
4. Celebrate our Island - past, present, and future.

Provide welcoming and inclusive spaces to express and experience creativity.

Stretching from bridge-to-bridge on the north end of the Island, Aubrey Davis Park offers a prime place for community gathering and connection. Arts and cultural activities can be used to inspire park users to get to know each other, to engage in meaningful dialogue, and to forge bonds with the park itself. Moreover, arts-based solutions for signage and park facilities can also be employed to inspire creativity and interest beyond traditional sculptures and new events.

Objectives

- Community Gathering
- Artmaking & Creative Expression
- Design for Inclusion

Possible Opportunities

- Art and arts spaces as landmarks and focal points for community gathering
- Art and arts experiences that encourage exploration and discovery
- Community engagement in the public art selection and creation process
- Interactive art installations for everyone
- Accessibility year-round through lighting features and installations, artful shelter structures, and art-inspired safety elements (ex. Designed paths to signal traffic crossings)
- Art-inspired and creative elements incorporated into wayfinding and facilities

Experience nature and art through all seasons.

The park serves as an oasis - a place where Islanders, commuters, regional neighbors, and others can escape from urban life. Current and future arts and culture features should complement the park's natural landscape and offer ways to interact with nature and experience tranquility. Those experiences should be available in all seasons. Using arts and culture as a tool, park accessibility can be improved so visitors can discover something new year-round.

Objectives

- Seasonal Experiences and Discoveries
- Sustainable Art Practices
- Exploration & Discovery

Potential Opportunities

- Art integrated with natural landscapes
- Noise mitigation through art installations and features (ex. Sound installations and rainwater collection features)
- Art that reacts to and embraces the weather - solar, rainwater, wind
- Landscape and foliage that create a visual art experience
- Interactive art features that engage all senses (ex. Edible plants and climbable or touchable artwork)

Cultivate an art-inspired environment.

Whether exploring one of the park's many works of public art or attending events in the outdoor sculpture gallery, community members already have many opportunities to engage with arts and culture in Aubrey Davis Park. Expanding on this artistic atmosphere through intentional curation and community-driven activities helps make the park a place community members want to visit and explore.

Objectives

- Performances & Events
- Public Art
- Artmaking

Potential Opportunities

- Showcase and build off existing artwork to create new experiences
- Provide spaces for arts events and performances
- Explore temporary art projects to inspire public engagement and expression
- Engage community members in the public art selection and creation process
- Provide opportunities for local artists

Celebrate our Island - past, present, and future.

From legends shared by the Duwamish who foraged and hunted on the Island to Aubrey Davis's legacy of establishing the "Park on the Lid," the park has many stories to tell. Uncovering and highlighting these stories fosters community understanding of the Island's rich history and offers more opportunities to honor our place. With arts and cultural activities, we can build a bridge between past, present, and future, allowing future Islanders and regional neighbors to embrace the park.

Objectives

- Connect and Support the Island's Diverse Cultures
- Art that Reflects Natural and Cultural Heritage
- Pride - Honor Our Place

Potential Opportunities

- Introduce cultural events in collaboration with the community
- Design wayfinding and interpretive signage that tells the story of the Island and its people
- Strengthen partnerships with Mountains to Sound Greenway and local community groups
- Create areas for remembrance and reflection

APPENDIX J

ARTS & CULTURE OPPORTUNITIES

Aubrey Davis Park – Art placement within the boundaries of the Park.

A combination of work that offers a diversity of style, permanent to temporary, balance of experiences through the park and contrast in style and approach. Highlight existing work, create new opportunities.

Use art as a connector for the overall park and to draw users through. Consider a variety of users and ages, programming and changed civic experiences.

Enhances design features and infrastructure with artworks that are substantive and timeless.

Consider art as wayfinding at gateways into the park that can be tied to an artist or graphic designer to create a unique unified identity. Themes that respect nature are of interest to the Arts Council and community. Consider multi lingual and indigenous language signs for larger use and understanding of site in historical context.

Tie signage to regional links - transportation, city center, bike and pedestrian trails.

Examples such as but not limited to:

Lighting or sound (sustainable methods such as solar when possible)

Consider seasonal changes – when is light at peak, how to harness that. When does the site need more lighting seasonally.

Consider this work in underpasses, under I-90, at boat launch, park entries

Artwork that works in concert with nature, trees, view

Appreciation of the parks natural assets and position to unique land and water views.

Existing Art

Consider tours led by creatives to learn and explore what exists at the site.

Engagement or residencies to create temporary work that encourages exploration through the park.

Interactive

Artwork that enhances play and recreational space – all ages

Can it create ambiance or combat sound pollution (under I-90, or highlight connection to water)

Infrastructure

I-90, Mountain to Sound Trail.

The Stacks are an amazing, unique community asset that can be projected or painted on or provide an interactive stage for performances at the site that create community gathering and new shared community events at the site.

Individual zones of interaction throughout the park:

Segments 1 & 8 and throughout park:

Functional – draw off what exists or needs are – unique bike racks, artist designed signal boxes, seating, unique lighting fixtures, shelters, comfort stations, water amenities (fountains for people and pets) – these all create elements that tie to the wayfinding component.

Gateway/Signage: Unique artist or designer created wayfinding that ties the park together from point to point and areas in-between. Gateway artwork or pieces that indicate arrival/departure at the park

Segment 2:

If play area expands utilize this as an opportunity to bring in artist designed, interactive elements or play space that is usable at all ages.

Consider existing wall as site for art – is it graphic? Or does it take on a more natural approach? Consider this site for a green/living wall.

Consider an artist designed viewing platform or stopping point from the tennis courts.

Towers are a great location for ongoing community gathering, temporary art in the form of yearly murals on the towers, projections or lighting during the winter months.

A space for concerts and other cultural creatives to program the space for performative work (music, dance...) in the summer and better weather months.

Segment 3:

artwork that is on a pedestrian scale that acts as an entry or gateway to the park

Underpass of trail can utilize lighting as art which will increase visitor perception of safety

Segment 4:

Create an intervention that provides a place for gathering – a community connection and meet up point. Also clear signage & graphics that provide info about the park but also connect to the town.

Work here that considers pedestrian scale and encourages visitors to explore the park, or conversely the town after exiting the park.

Segment 5:

Artwork that works off the trees and nature in this site.

Signage as pass through.

Segment 6:

Possible natural play area or small earthwork for community meet up.

Art that frames and considers natural views and connection to this place in the region.

Artwork that considers the connection to water and land.

Segment 7:

Consider seasonal or temporary art that considers natural interventions and work with the trees and landscape.

Signage that connects to regional trails, other cities, the waterfront

Segment 8: Lighting or sound interventions to combat overpass and sound from highway. Does the work have an interactive component?

Possible seasonal temporary art on the water (that respects nature)

Consider view over I-5 and link to the region and special views.

Color key for art – suggestions by site:



Lighting/sound/safety



Play/interactive



Ties to nature, site context in region, view and "history"



Community connections and gathering points

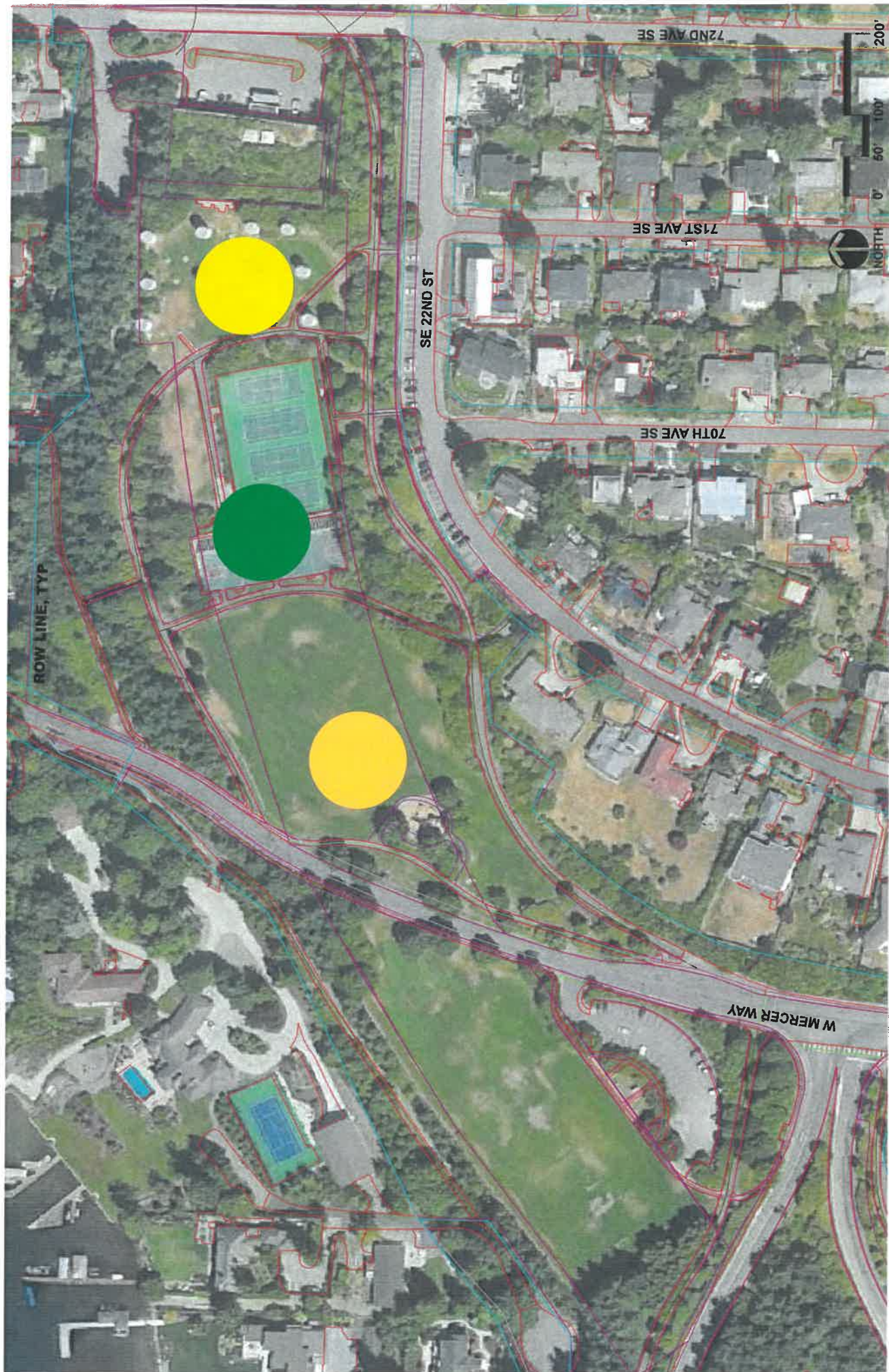


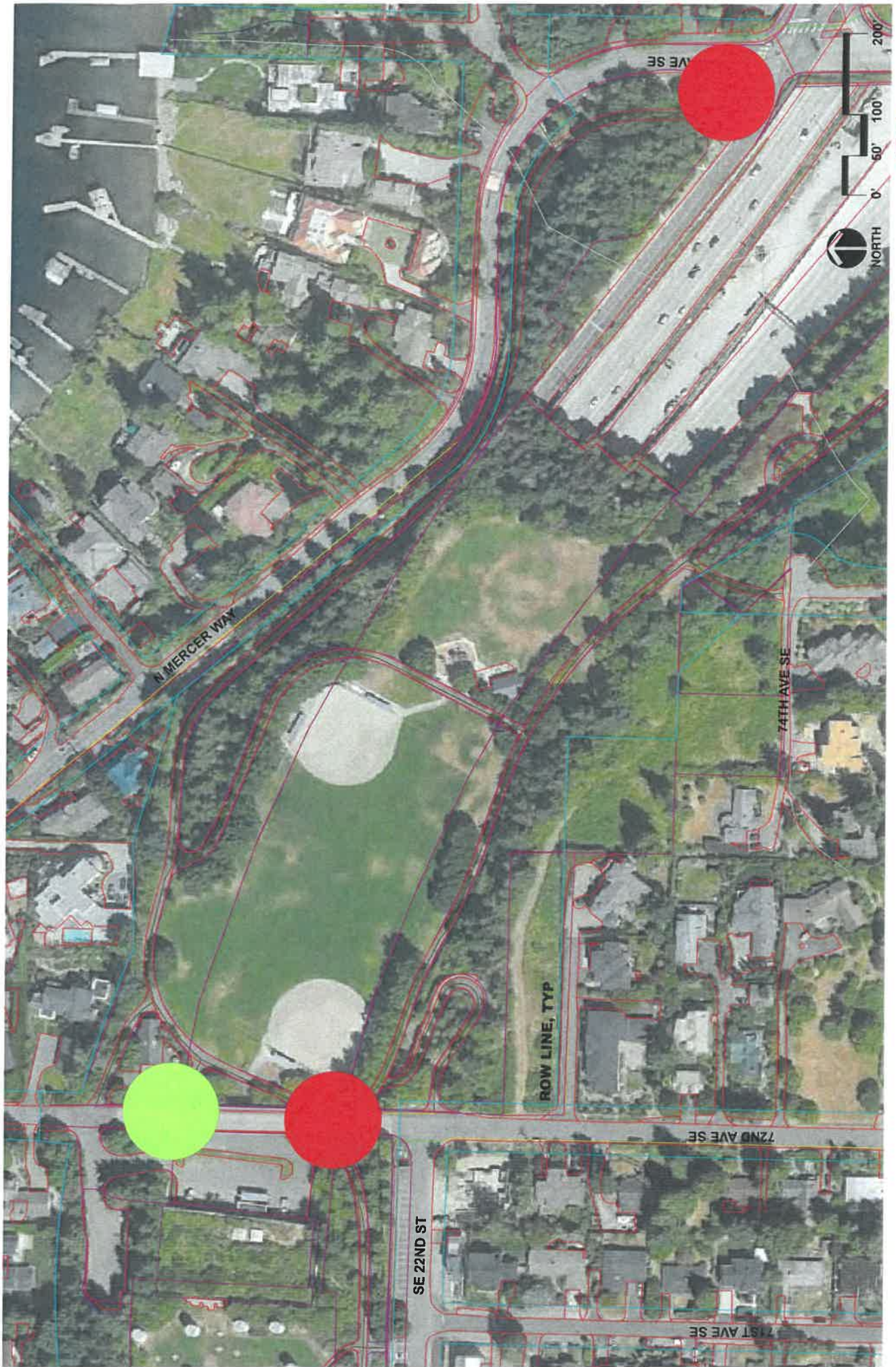
Wayfinding/graphic elements that create a connection



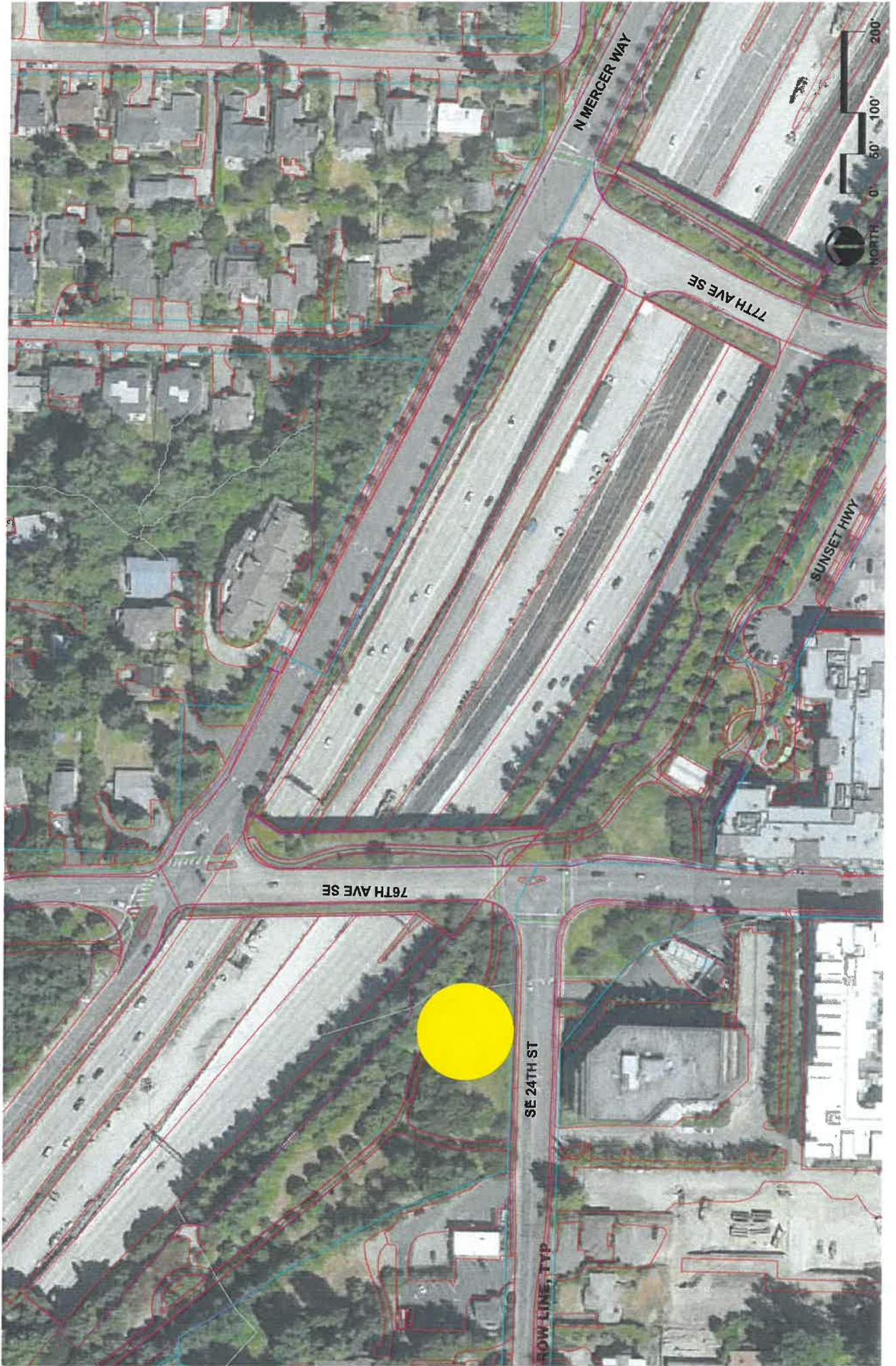
Seasonal opportunities





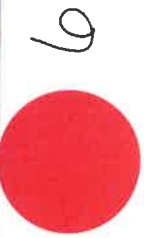
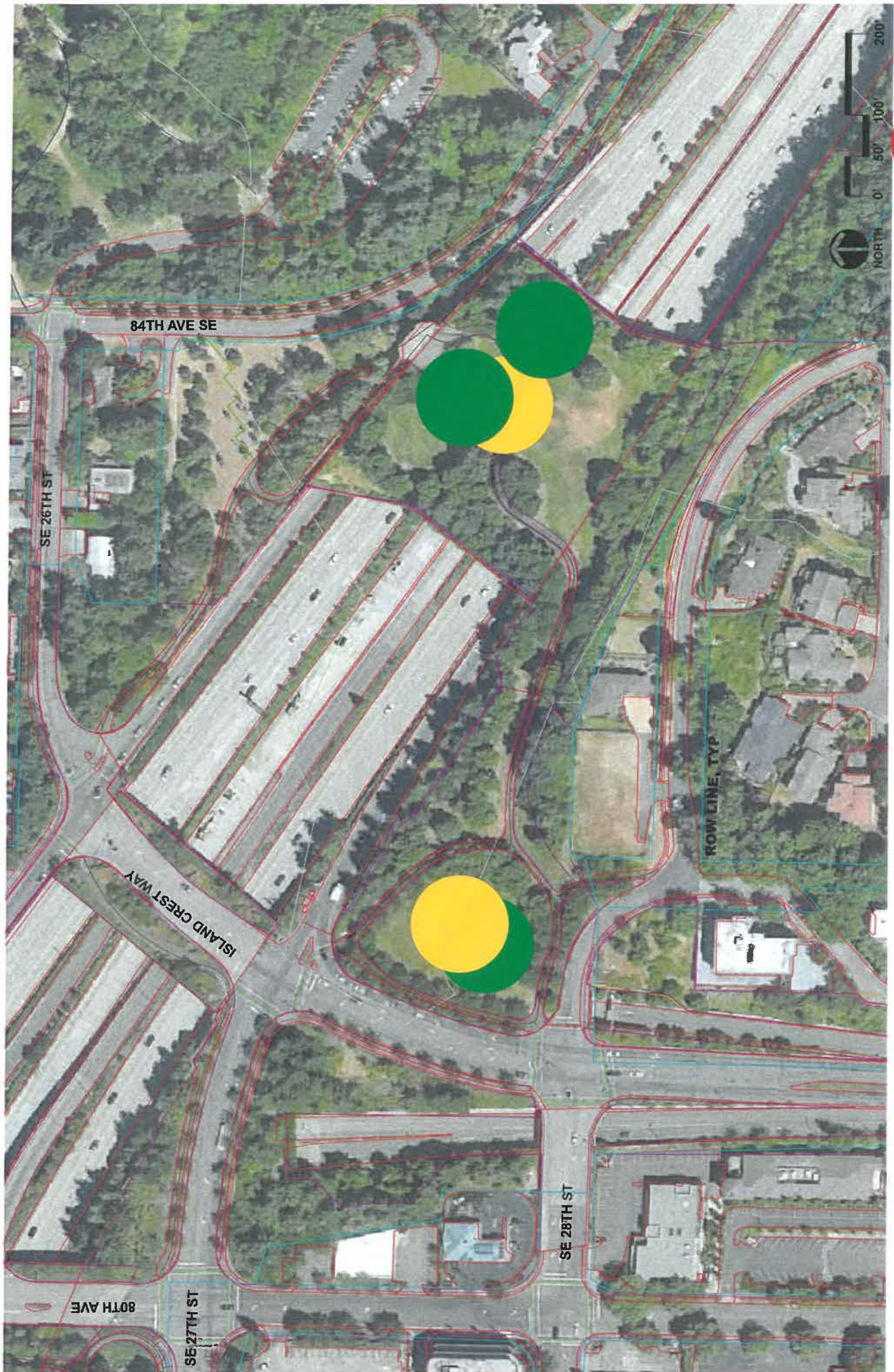


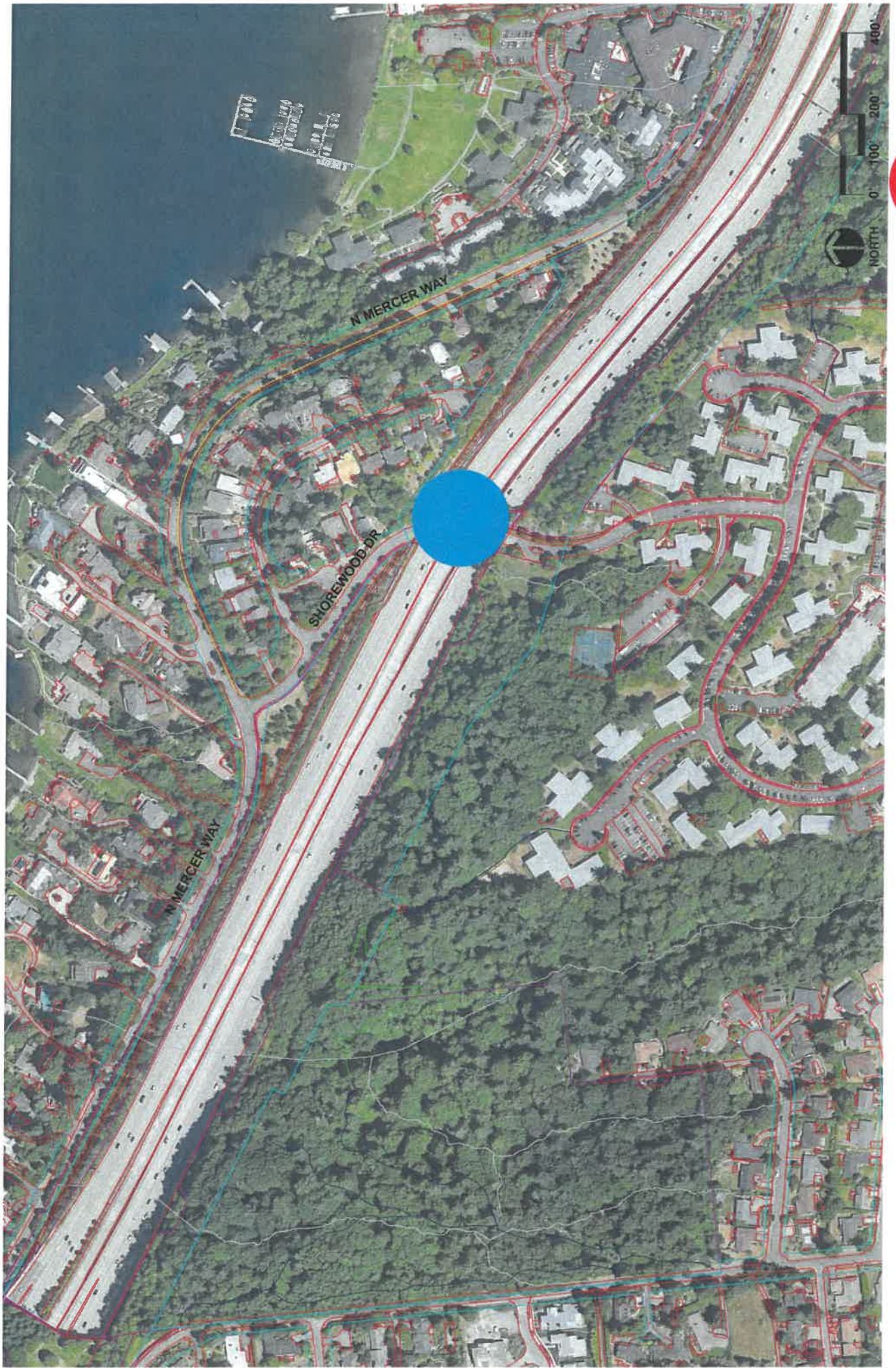
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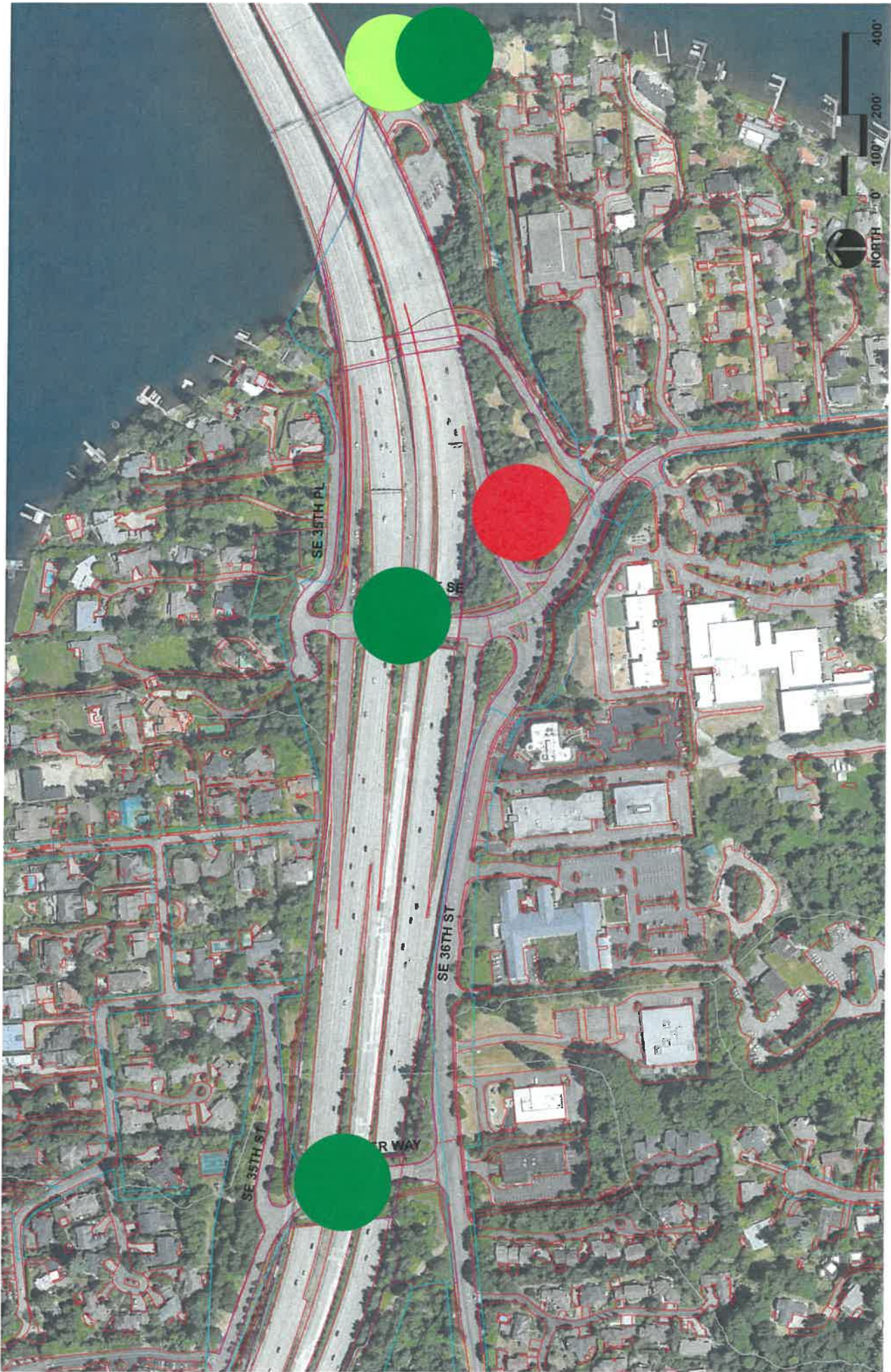


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8

APPENDIX K

COMMUNITY OUTREACH EVENTS

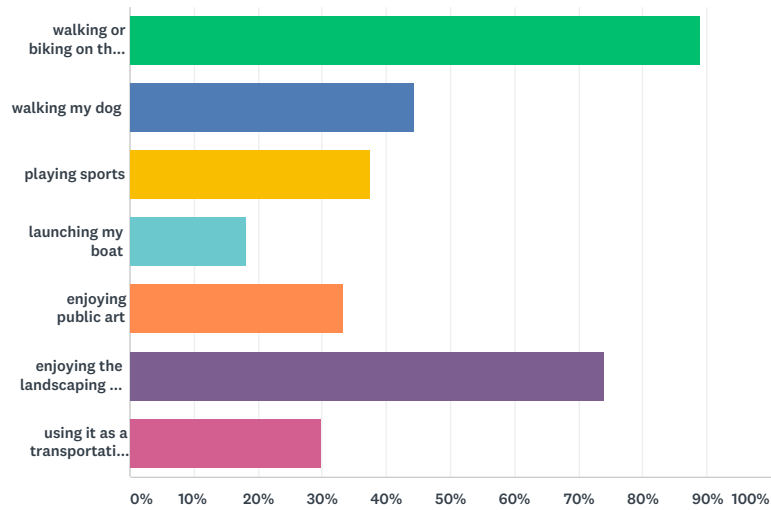
Q1 OPTIONAL: Please give us the best way to contact you

Answered: 146 Skipped: 130

ANSWER CHOICES	RESPONSES	
Name	97.26%	142
email	98.63%	144
phone number	69.86%	102

Q2 What park activities interest you? (select all that apply)

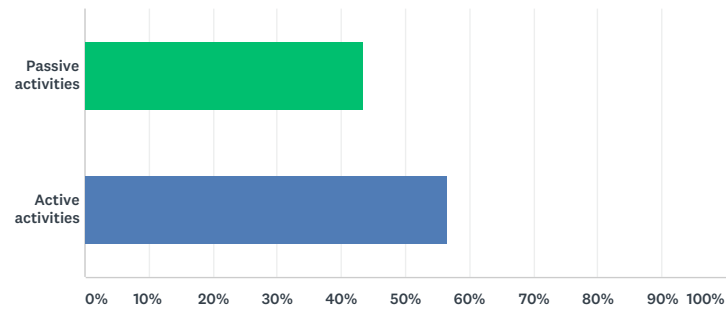
Answered: 270 Skipped: 6



ANSWER CHOICES	RESPONSES	
walking or biking on the trail	88.89%	240
walking my dog	44.44%	120
playing sports	37.41%	101
launching my boat	18.15%	49
enjoying public art	33.33%	90
enjoying the landscaping and scenery	74.07%	200
using it as a transportation route (by foot or bike) off-island	30.00%	81
Total Respondents: 270		

Q3 When you visit a park, do you typically enjoy passive activities (birdwatching, picnicing etc.) or active activities (sports, playground, etc.)?

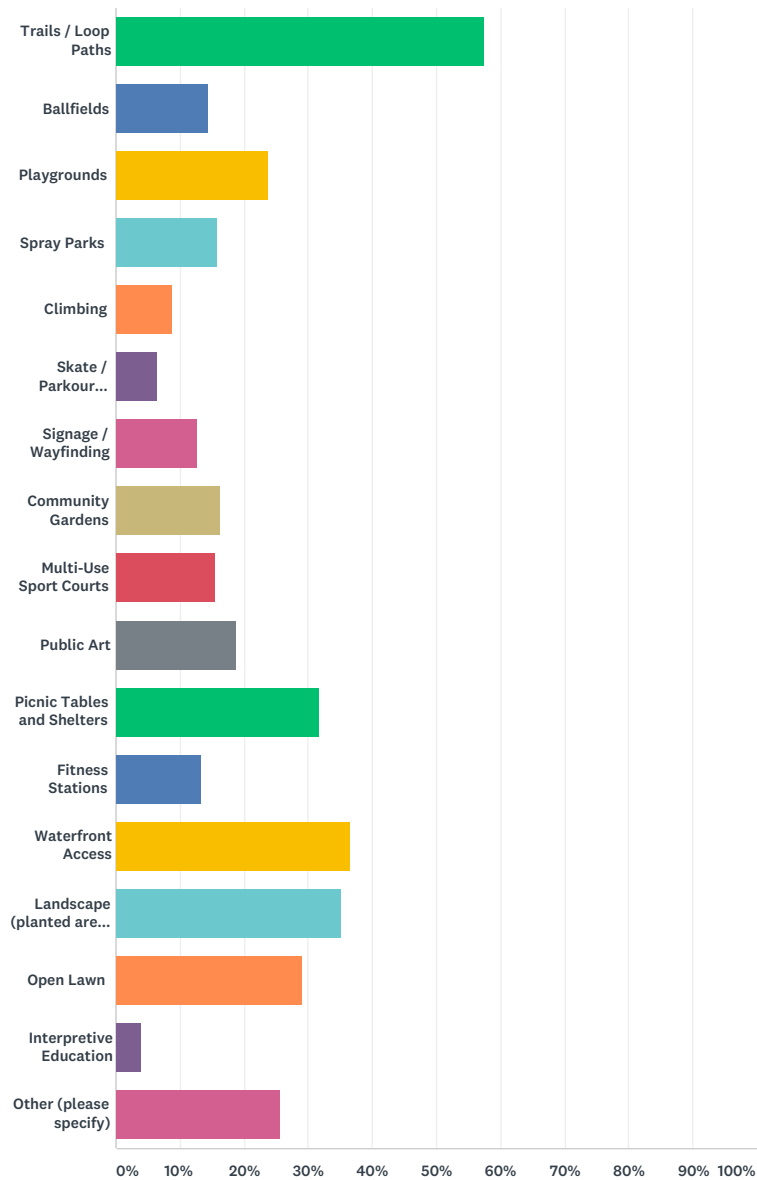
Answered: 269 Skipped: 7



ANSWER CHOICES		RESPONSES	
Passive activities		43.49%	117
Active activities		56.51%	152
TOTAL			269

Q4 Of the following amenities, which of the following would you like to see improved or added in Aubrey Davis Park? (select up to 5 total)

Answered: 276 Skipped: 0

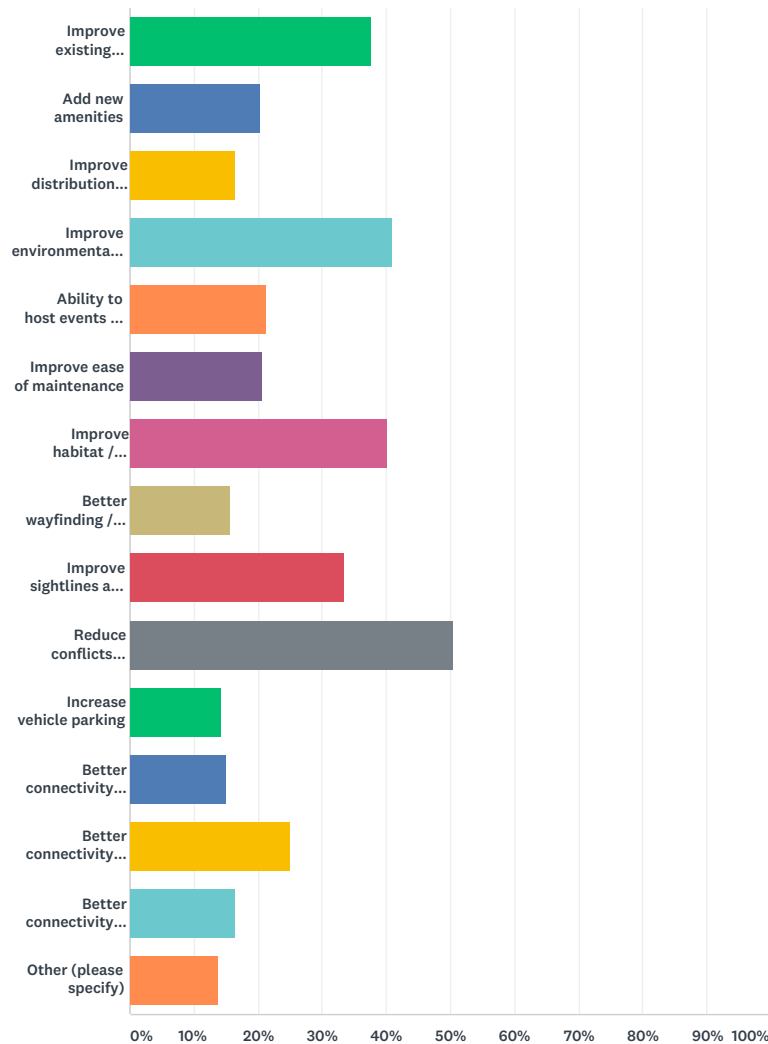


ANSWER CHOICES	RESPONSES	
Trails / Loop Paths	57.61%	159
Ballfields	14.49%	40
Playgrounds	23.91%	66
Spray Parks	15.94%	44
Climbing	8.70%	24
Skate / Parkour Elements	6.52%	18
Signage / Wayfinding	12.68%	35
Community Gardens	16.30%	45
Multi-Use Sport Courts	15.58%	43
Public Art	18.84%	52
Picnic Tables and Shelters	31.88%	88

Fitness Stations	13.41%	37
Waterfront Access	36.59%	101
Landscape (planted areas, trees, etc.)	35.14%	97
Open Lawn	28.99%	80
Interpretive Education	3.99%	11
Other (please specify)	25.72%	71
Total Respondents: 276		

Q5 Master plans often involve “guiding principles” that help shape and prioritize design ideas. Please select your top 5 guiding principles below.

Answered: 266 Skipped: 10

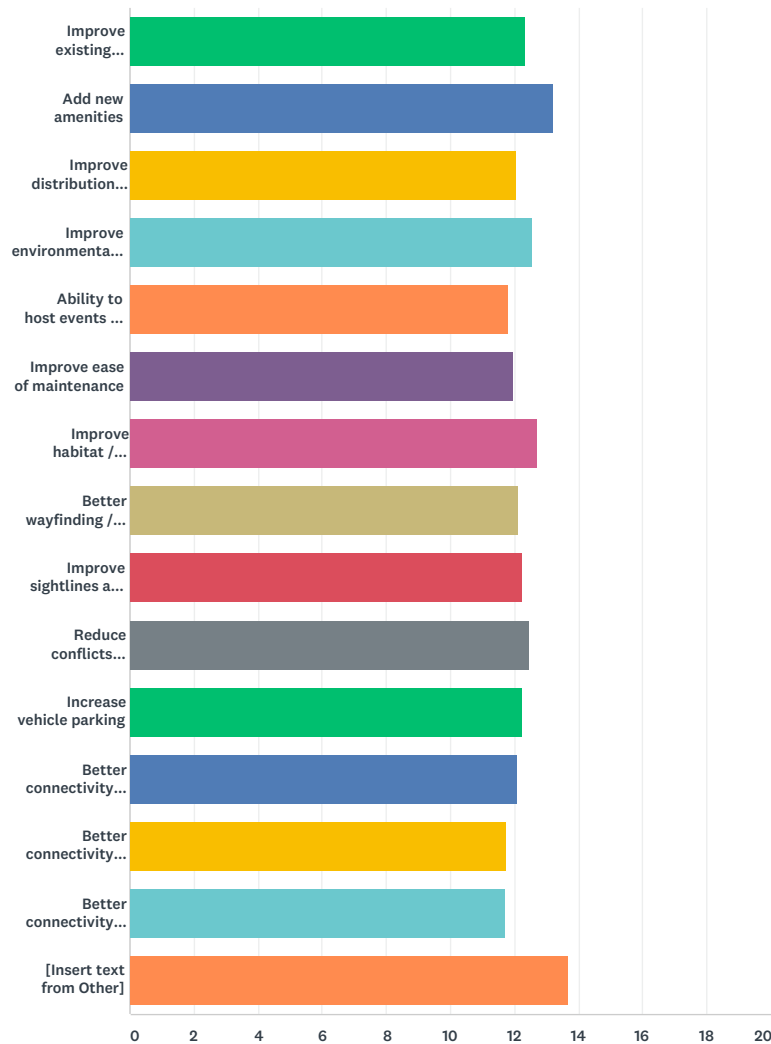


ANSWER CHOICES	RESPONSES	
Improve existing amenities	37.59%	100
Add new amenities	20.30%	54
Improve distribution of amenities	16.54%	44
Improve environmental sustainability	40.98%	109
Ability to host events and festivals	21.43%	57
Improve ease of maintenance	20.68%	55
Improve habitat / ecological systems	40.23%	107
Better wayfinding / signage	15.79%	42
Improve sightlines and visibility along trails and open space	33.46%	89
Reduce conflicts between trail users and other pedestrians	50.38%	134
Increase vehicle parking	14.29%	38
Better connectivity to adjacent neighborhoods	15.04%	40
Better connectivity to Town Center	25.19%	67
Better connectivity to transit	16.54%	44

Other (please specify)	13.91%	37
Total Respondents: 266		

Q6 Please rank your answers from the previous question. A rank of 1 means “Most Important” and 5 means “Least Important.”

Answered: 255 Skipped: 21



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	N/A
Improve existing amenities	26.09% 24	23.91% 22	20.65% 19	13.04% 12	15.22% 14	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	1.09%
Add new amenities	46.00% 23	38.00% 19	12.00% 6	2.00% 1	2.00% 1	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00%
Improve distribution of amenities	9.30% 4	23.26% 10	39.53% 17	13.95% 6	11.63% 5	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	2.33%
Improve environmental sustainability	25.74% 26	30.69% 31	19.80% 20	19.80% 20	3.96% 4	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00%
Ability to host events and festivals	14.29% 8	17.86% 10	17.86% 10	23.21% 13	21.43% 12	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	5.36%
Improve ease of maintenance	9.43% 5	26.42% 14	28.30% 15	18.87% 10	15.09% 8	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	1.89%
Improve habitat / ecological systems	41.35% 43	21.15% 22	14.42% 15	16.35% 17	6.73% 7	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00%

Better wayfinding / signage	19.51% 8	19.51% 8	26.83% 11	17.07% 7	14.63% 6	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	2.44%
Improve sightlines and visibility along trails and open space	21.59% 19	27.27% 24	15.91% 14	19.32% 17	13.64% 12	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	2.27%
Reduce conflicts between trail users and other pedestrians	29.60% 37	25.60% 32	20.80% 26	11.20% 14	12.80% 16	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00%
Increase vehicle parking	20.59% 7	38.24% 13	2.94% 1	23.53% 8	14.71% 5	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00%
Better connectivity to adjacent neighborhoods	12.82% 5	20.51% 8	41.03% 16	12.82% 5	12.82% 5	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00%
Better connectivity to Town Center	10.94% 7	26.56% 17	14.06% 9	21.88% 14	25.00% 16	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	1.56%
Better connectivity to transit	9.09% 4	20.45% 9	25.00% 11	25.00% 11	20.45% 9	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00%
[Insert text from Other]	78.38% 29	13.51% 5	8.11% 3	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00%

Q7 Please finish the following sentence: I love Mercer Island because . . .

.

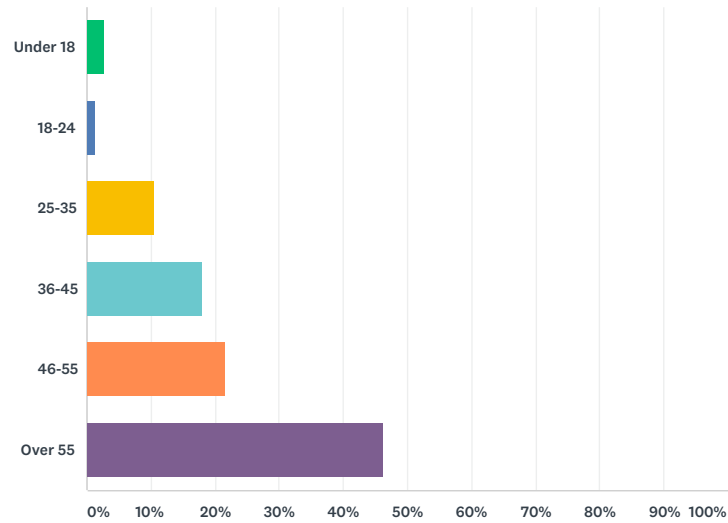
Answered: 230 Skipped: 46

Q8 Is there anything else you would like us to consider as we develop a new master plan for Aubrey Davis Park?

Answered: 157 Skipped: 119

Q9 What is your age?

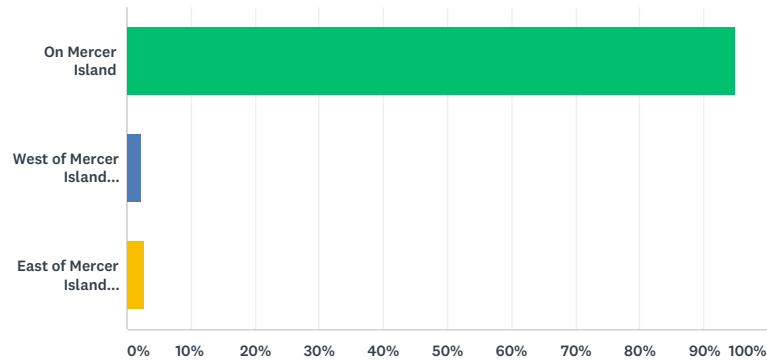
Answered: 251 Skipped: 25



ANSWER CHOICES	RESPONSES	
Under 18	2.79%	7
18-24	1.20%	3
25-35	10.36%	26
36-45	17.93%	45
46-55	21.51%	54
Over 55	46.22%	116
TOTAL		251

Q10 Where do you live?

Answered: 254 Skipped: 22



ANSWER CHOICES	RESPONSES	
On Mercer Island	94.88%	241
West of Mercer Island (Seattle, Shoreline, Burien, etc.)	2.36%	6
East of Mercer Island (Bellevue, Renton, Kirkland, etc.)	2.76%	7
TOTAL		254

Trails Public Forum | SUMMARY

September 25, 2018

Topic	Comment Summary
Trail section	<ul style="list-style-type: none"> ● 14' wide paved with 2' wide shoulders ● Separated 6' wide crushed surface trail where space allows ● Provide different types of trail types and experiences for different trail users ● Include a bypass route with improved on-road bike facilities along N and W Mercer Way and provide connections between the bypass route and the trail to allow a variety of choices ● Improve all trail intersections and conflict zones for safety and accessibility ● Provide looped trails within the park as well as the regional connections ● Regional trail route preferred to stay on the north side with south side more secondary access ● Extend trail on south side from Island Crest Way to City Hall and the waterfront
Trail amenities (north and south)	<ul style="list-style-type: none"> ● Benches ● Picnic areas ● Wayfinding ● Interpretive / educational elements ● Pedestrian lighting ● Activation / programming of open spaces along the trail ● Create destinations along the corridor ● Additional restrooms locations should be considered
The trail experience should feel...	<ul style="list-style-type: none"> ● Safe, serene, green, effective, protective, attractive, natural, balance of users, users separated, shared, not a thru park, fun, fast, calm, shaded, secure, predictability, connected, welcoming, accessible

Trail users should include everyone...	<ul style="list-style-type: none"> ● Walkers; walk commuters (to the bus / park-n-ride); skate boarders, scooters, kids on bikes, ride share (uber/lyft) waiting person, travelers (ie, w/ luggage), dogs-walkers, rollerblades, picnic-ers, kids learning to ride bikes, neighbors, high speed cyclists, recreation-ers, seniors, event participants and racers (ie, 5K to marathons), bike share users, visitors to Mercer Island (arriving by trail), group riders, e-bike riders (or e-scooters, e-boarders, etc.)
The trail character should be...	<ul style="list-style-type: none"> ● Urban, natural, green, have destinations, horticultural, separate paths for separate users, countryside, central park, benches, signed / wayfinding / rules, surface differences, less asphalt ● Unified but with some highlights of distinction for context of park areas, trail only corridors, and urban centers
Trail safety	<ul style="list-style-type: none"> ● Improve sightlines and sight distances, especially around curves and on slopes ● Improve accessibility overall and provide step-outs or rest areas where needed ● Improve accessibility and safety at intersections for all users ● Provide vegetation management to support trail safety and experience ● Provide cyclist-oriented traffic calming to reduce speeds and separate or better define different types of users
Trail connections	<ul style="list-style-type: none"> ● Increase connections to adjacent communities and neighbors ● Make sure connections include accessible options and routes ● Create clear connections (with wayfinding) to major destinations in the Town Center, Sound Transit, Luther Burbank Park, Community Center, the waterfront, City Hall, and other locations near and far ● Reduce cyclist speeds and increase safety at all connections ● Highlight entrances into the park and connection locations

Trails Public Forum | MEETING NOTES

September 25, 2018

Plan Area	Notes
General	<ul style="list-style-type: none"> ● Trail section: proposed is 14' wide paved with 2' wide shoulders and a separated 6' wide crushed surface trail where space allows ● The trail experience should be: safe, serene, green, effective, protective, attractive, natural, balance of users, users separated, shared, not a thru park, fun, fast, calm, shaded, secure, predictability, connected, welcoming ● Right now, the trail is: fractured, segmented, dangerous, noisy, confusing, cyclist / commuter focused ● Trail users include: walkers; walk commuters (to the bus / park-n-ride); skate boarders, scooters, kids on bikes, uber-waiting person, dogs, rollerblades, picnic-ers, kids learning to ride bikes, neighbors, high speed cyclists, recreation-ers, seniors, visitors to Mercer Island (arriving by trail), group riders, e-bike riders (or e-scooters, e-boarders, etc.), travelers w/ luggage ● The trail character should be: urban, natural, green, have destinations, horticultural, separate paths for separate users, countryside, central park, benches, signed / wayfinding / rules, surface differences ● There are a lot of ADA challenges on the trail now; also lot of conflicts and speeding from cyclists ● Like crushed rock path 5' – 6' wide for pedestrians / non-commuters (in addition to the 14' wide paved) ● Some walkers don't like pavement ● Reduce asphalt where possible ● Make N and W Mercer Way a bypass for cyclists – high speed route; bike lanes or other bike-friendly treatments ● Pushing cyclists onto N Mercer Way doesn't feel safe ● Prefer separated path for pedestrians ● Accommodate strollers in destinations ● Include mile markers ● Kiosks and wayfinding needed throughout, including to Luther Burbank Park ● Dog bags and trash cans needed ● Slow cyclists down at connection points ● Add benches, picnic all along the trail (north and south sides)

	<ul style="list-style-type: none"> ● Preserve trail through MKA development ● Add signage along the trail for native plants, wildlife, etc. (interpretive elements) ● Add signage for dog areas (where it is acceptable and where it is not) ● Add educational elements / interpretive signage about wetlands or streams if there are any in the park areas ● Gateways could be located at E Mercer Way (cul-de-sac), park-n-ride, W Mercer Way east side near playground ● Provide more info on park history ● Consider more pedestrian lighting – maybe motion censored; for community and commuters; connection to Sound Transit station ● Don't put fast bikes through park, playgrounds and fields ● Provide a non-paved route from water to water
Segment 1	<ul style="list-style-type: none"> ● Connection to the waterfront (to the west) needs wayfinding, more visibility ● Bicycles speeds excessive heading west; need safety and sight distances improvements, especially at the curve ● Need sight distance improvements around curve ● Can't see around on-ramp ● Add benches, picnic areas along trail on the south side of I90 ● Consider a divided path on trail on the south side of I90 with soft surface for pedestrians ● Trail on south side of I90 is hard to find, many don't know its there so need better visibility, entrances, and wayfinding ● Improve the kayak / canoe launch area at the waterfront
Segment 2	<ul style="list-style-type: none"> ● Intersection at W Mercer Way is confusing, needs safety and accessibility improvements, wayfinding ● Add connection or crosswalk at entrance to parking, more like midblock and more direct to the playground ● Provide an on-street route along W Mercer Way headed north (bypass route) ● Conflicts between people moving to and from the playground and bicycles trying to get through on the path, especially when the bicycle turns down W Mercer and then tries to cut back to the trail to the south ● Need more wayfinding at trail crossing to clear where bicycles should go to stay on trail or go on bypass route ● Add pedestrian lighting or bollards on trail to Town Center ● Add lights at wayfinding or other signage

	<ul style="list-style-type: none"> ● Provide loop path lawn area and connecting courts to the trail ● Provide better connection from the parking area on SE 22nd Street to the courts and open lawn area ● Do something with the stacks so more attractive, maybe a spot for covered picnic ● Create more of a gateway to the lid park at the intersection here ● Add lights along the trail (pedestrian priority but nice for pedestrians and bicycles) – continue through to lid connection to Luther Burbank but priority from W Mercer Way to the park-n-ride ● Stacks could be a focal point and draw for people if more interesting (art, trellis, canopy shelter, etc.) ● Add a bathroom near the corner of the parking and the W Mercer Way (east or west sides) ● Consider separate crossings for different users at intersection of the trail and W Mercer Way – pedestrians, EB cyclist, WB cyclist – and raised table or other approach to make it safer ● Need better sightlines and visibility where trail comes up the hill towards the parking off SE 22nd Street, difficult to see around the curve in trail ● Consider trail separated (bridge) over W Mercer Way, would reduce speed and align with higher elevation by parking lot near courts for greater separation of uses
Segment 3	<ul style="list-style-type: none"> ● Need safety improvements where trail comes down the hill and around a blind corner into the restroom and field area – big conflict zone; add elements to slow down cyclists ● Don't move main regional trail to south side ● Open space used a lot next to playground ● Connect east side of fields to the south side trail ● Consider a trail-sized roundabout at conflict corner ● Need better visibility and sightlines at corner / under the overpass area ● Consider moving trail to the west of the restroom/maintenance building (around the back side) to avoid conflict with park users ● Need safety improvements to reduce speeds coming down the hill along the trail to the north side of the lid ● Need to improve connection on the south side towards the Town Center and add more wayfinding, but main trail should stay to the north side; trail on the south side could be narrower so it doesn't feel as much like the main regional trail route ● Consider programming and other opportunities in open space to the east of the playground ● Improve connection to 74th Avenue SE

	<ul style="list-style-type: none"> ● Consider more of a connection from the south side along the east edge of the lid to the main trail on the north side, this would avoid the conflict area in the middle ● Provide separated trail between bicycles and pedestrians along the south side of the open space area
Segment 4	<ul style="list-style-type: none"> ● Need better crossing at off ramp to 77th Avenue SE; feels unsafe now ● Need safety improvements along trail on the north side of I90 where adjacent to N Mercer Way – wider, better separation, trail surface improvements, visibility, etc. ● Would like to see a more direct crossing of the trail on the south side of I90 (intersection of 76th Avenue SE and SE 24th Street); prioritize the pedestrians / trail users at this intersection ● May need a trail-sized roundabout at intersection of south trail and 76th Avenue SE ● Add benches on south side ● Park-n-ride should be a walk only zone ● Include opportunity for bike-share parking
Segment 5	<ul style="list-style-type: none"> ● Need directional signs / wayfinding at corner of N Mercer Way and SE 24th street for bypass route; and improve the street for a better bypass route ● Improve treatment at the bus stop in front of park-n-ride so no ride zone, priority to pedestrians – need bicycle calming, more clear signage, hierarchy of treatment to pedestrians first, etc. ● Do not encourage bicycles / trail connection along 81st Avenue SE from SE 24th Street to N Mercer Way ● Preserve the trail on the south side through this segment, but north side should be primary trail ● Improve walkways and trail connections along bridges to get from north trail to the Town Center, needs more visibility and nicer walking route as well as intersection crossing improvements so feels safer (enhanced vegetation, lighting, paving, etc.) ● Need crosswalk wider or relocated to align to the trail at intersection of SE 27th Street and 80th Avenue SE; maybe crossing flags or other safety improvements ● Add “bikes too” to stop signs – when bicycles are on the street (bypass route) they forget to obey the street signs ● School buses load at park-n-ride too, so need to consider how they will function with any improvements or changes to the system, right now doesn't feel safe for school kids ● Bike parking needed at Town Center, transit area and activity zones – signage and wayfinding to the bike parking and lockers needed as well ● Need safer intersection crossings for north trail ● Add a restroom at the park-n-ride or at the new Tully's development site

Segment 6

- Lid area is not visible from roads or other public areas, feels unsafe
- Access to this lid area is not very visible – need signage, improved entry, more sightlines and views into the area, etc.
- Provide stairs from SE 28th Street into the lid area
- This feels like a pass-through but should be a destination – needs activity, reason for people to be here
- Sign the pinch point so warning / added caution
- There is an existing informal trail from overlook down to roadway; steep grade
- Need better access to Covenant Shores area
- This lid feels isolated
- Need safer intersection crossings for north trail
- Opportunity area at corner of Island Crest Way and SE 28th Street, open space could be improved and help get people to use the lid area here better
- Need more formal entrance to the lid – something visible from SE 28th Street
- Uses for lid area – sculpture area, garden / demonstration planting, picnic, other passive uses
- Connect from this lid down to Luther Burbank, make the connection more visible
- Need safe crossing between Luther Burbank and the open space adjacent to I90 (across N Mercer Way)
- Consider using SE 26th Street as a connection from the bypass route back to the trail
- Bypass route on street would continue on N Mercer Way through this area
- Trail on north side should include separated trail for pedestrians (soft surface) where space is available
- Continue a secondary path from the lid area along the south side of I90 through the wooded area (area has some steep slopes)
- Add signs about the history of the area at the top of the hill (base of the overlook)
- Move the bench so you can sit and still see the view at the overlook
- Add picnic area and benches to the lid area
- Add signage about history of Luther Burbank Park to the overlook area; like the signage around the community center as a good example

Segment 7

- Would like to see a trail through the forested area on the south side of I90
- Need more connections to the neighborhood between the north trail and N Mercer Way
- Intersections with the trail crossings need safety improvements
- This might be a good place for the bypass route to connect back into the trail so users have options for on or off trail experience (like a left turn lane for cyclists heading westbound)

	<ul style="list-style-type: none"> ● Add a westbound bike lane on N Mercer Way for improved bypass route ● Provide lighting long trail
Segment 8	<ul style="list-style-type: none"> ● Improve connection to City Hall – from north trail, from south secondary trail, from both east and west sides (N Mercer Way and E Mercer Way) ● Need better crosswalks, safe crossings at intersections east and west from City Hall ● Need better wayfinding so can use City Hall parking as trail head parking on weekends ● This section of the trail on the north side feels isolated, need more wayfinding, visibility, clear entrances to the trail system, etc. ● Make the trail feel more permeable to the neighborhood along this segment, more connections ● Consider parking, trailhead type improvements at the existing cul-de-sac off SE 35th Place, connect better to trail (short term trailhead parking) ● Need better wayfinding and letting people know there is waterfront access at east end; potential destination; better path along the water ● Improve connection, provide a clear route from trail (and City Hall) to the waterfront ● Provide lighting along trail ● Create connection to SE 40th Street ● Add a restroom at the boat launch / waterfront area ● Add lights along connection from trail to City Hall

Sports & Boating Public Forum |

SUMMARY

October 25, 2018

Topic	Comment Summary
Sports users include...	<ul style="list-style-type: none"> ● Walkers, school sports teams, senior sports teams, day camp users, dog owners, Special Olympics, families
Sports Amenities	<ul style="list-style-type: none"> ● Pedestrian lighting ● Field improvements ● Nearby views ● Signage & wayfinding ● Increased parking ● Increased accessibility
Sports Field improvements	<ul style="list-style-type: none"> ● Field C is the most ideal for synthetic turf and lighting improvements ● Field B needs a safer pedestrian crossing across W Mercer Way ● Create parking area for Field B ● Increase parking capacity at Field A ● Keep Field A grass; improve maintenance ● Add low buffer at Field A to prevent balls from running into trail ● Improve safety between active and passive users at all recreation areas
Water Access users include...	<ul style="list-style-type: none"> ● Boaters, walkers
Water Access amenities (east and west)	<ul style="list-style-type: none"> ● Benches ● Picnic areas ● Signage & wayfinding ● Pedestrian lighting ● Additional restrooms ● Increased parking ● Increased accessibility

Water Access Improvements (east)	<ul style="list-style-type: none"> ● East boat launch is well-known and used heavily by boaters. Can increase capacity through improved parking and restrooms ● Currently most utilized by a specific user group (boaters) during specific times of the year (summer). Can increase the type and timing of use by creating a more park-like environment for year-round appeal
Water Access Improvements (west)	<ul style="list-style-type: none"> ● West water access is not as well-known or used. Create a sense of place and reasons to come here through signage and programming ● Desire for a family-oriented water access area, with interest in swimming, picnic access, and restrooms ● Interest in creating a dog park here as well
Sports and Boating connections	<ul style="list-style-type: none"> ● Highlight entrances into the park and connection locations ● Promote unique identities for recreation areas, especially for the two water access areas ● Increase connections to adjacent communities and neighbors ● Make sure connections include accessible options and routes ● Create clear connections (with wayfinding) to major destinations in the Town Center, Sound Transit, Luther Burbank Park, Community Center, the waterfront, City Hall, and other locations near and far ● Reduce cyclist speeds and increase safety at all connections

Sports & Boating Public Forum |

MEETING NOTES

October 25, 2018

Plan Area	Notes
General	<p>Landscape</p> <ul style="list-style-type: none"> ● Priorities should be to maintain a natural setting, create multi-use areas, and balance between open space and active use ● Central Park in NYC as an inspiration ● Save green space and keep it quiet, with buffers from sports fields ● Consider dog stations along corridors ● Use native planting <p>Recreation</p> <ul style="list-style-type: none"> ● Sports to consider adding: ultimate frisbee, wall ball, frisbee golf, putting green or pitch & putt, pickleball at tennis courts ● Connect uses to trails, Park n Ride, Light Rail Station, and Luther Burbank <p>Trail</p> <ul style="list-style-type: none"> ● Transit corridor use is important; repair cracks and heaves ● Find ways to create variety in a lineal corridor ● Great views from the west end soccer field ● Segregate uses to improve both experiences for bicycles and pedestrians ● Transit corridor to allow for multi-usage and maintain well ● With wide paths, what safety barriers will there be to keep vehicles off the paths? ● Like quietness, don't want fast bikes ● Separate bike lanes similar to Green Lake ● Connections between bike path through city hall
Segment 1	<ul style="list-style-type: none"> ● Boat launch at west end needs a name ● Many not aware there is a water access here ● Water access area is loud, dark, and not inviting ● How could this become a gradual slope? ● Expand parking in the water access area ● Could use a picnic access or restroom here, also a potential area for a dog park ● Potential area for boat launch at west end ● Potential swimming at west end; could have a beach to activate area ● Make west end water access more family-friendly

	<ul style="list-style-type: none"> ● West end a good place to teach kids how to drive ● Uncomfortable with activity from people parking at the west end ● Other water access is better ● Works with any trailer ● Possible 2-lane access
Segment 2	<ul style="list-style-type: none"> ● Like that multiple teams can be scheduled in this area ● Ability to keep kids in one place ● Maintain edges, keep clear, and use herbicide types not harmful to kids or pets ● Like option for different fields ● Keep natural character, with green trees ● More dog bags & cans along trail needed ● Keep all trees ● Bikes need to slow down in park ● Consider adding a trail roundabout ● Keep path as is ● Like variety where walking ● Like no lighting or low-key lighting ● Like that you can walk through, prefer segregated bike usage <p>Field C</p> <ul style="list-style-type: none"> ● Field C as a destination for walking, with nice views ● Use fields for ultimate frisbee ● Too much use of field C – difficult to maintain ● Restroom needed near west parking lot ● Parking tight at field C ● Better drop-off flow at Field C ● Field C is best location for turf and sport lighting ● Boys Lacrosse in Area C year-round ● For Boys Lacrosse use, grass here has divot holes, bad drainage, time of year, no restrooms, and inconsistent field quality. Would prefer to have turf at Field C ● Field C not full sized for soccer, nor level enough. Ok for games & practice ● Field C can connect to "wall ball" at field B ● Improve drainage if needed for Field C <p>Field B</p> <ul style="list-style-type: none"> ● Field B not preferred for soccer; small, sloped, and there are better fields ● Field B needs parking and crossing across street ● Keep calm and quiet near Field B ● Field B slopes too much ● Girls Lacrosse uses basketball courts as a ball wall

	<ul style="list-style-type: none"> ● Boys Lacrosse uses basketball courts as a ball wall ● Improve basketball courts <p>Tennis Courts and Upper Field Area</p> <ul style="list-style-type: none"> ● Parking near vents often full because construction tends to park there ● Don't see a lot of use of tennis fields; too windy and exposed ● Best views from tennis fields ● Repurpose tennis fields to make better use of the views? Perhaps an outdoor theater space or community gathering space ● Like an amphitheater option instead of tennis fields ● Camouflage vents ● Vents as a destination ● Green vents preferred to murals ● Could have street art at vents ● Camouflage wall behind basketball courts ● Use greenery or murals at vents
Segment 3	<ul style="list-style-type: none"> ● Like the convenience, restrooms, drainage, and well-maintained fields at Area A ● Like programmatical variety in this area ● Area A parking lot is small but crucial ● Not enough parking here ● Restroom here is aging ● Conflict zone as trail crosses under bridge ● Consider trail roundabout under bridge ● Bikes too fast through here ● Conflicts on trail due to fast bikes <p>Field A</p> <ul style="list-style-type: none"> ● No sport lighting - path lighting closer to town center and more populated areas ● Lighting at fields a good idea ● Keep field grass ● Field could use low fencing ● Turf fields preferred for field C or homestead, but prefer all turf kept in same area ● Girls Lacrosse in Area A for practices ● Divot holes in grass not ideal ● Rockers (Senior Softball) uses Area A w. field; balls hit across trail and into trees ● Baseball 7 days a week in the spring – like having natural grass options, great location ● Cones as fences work for baseball (fences themselves need more work and pose a storage issue) ● Need fences for All-Stars ● Softballs go over trail sometimes

	<ul style="list-style-type: none"> ● Mercer Island FC uses Area A in the fall. Not full sized, so good for younger us. Level and safe ● Mercer Island Boys & Girls club / Little League use at Area A; day camps for little kids ● Day camp usage on Field A conflicts with walking to restrooms, etc. ● Backstop area at field tight ● Dog owners off leash during softball is dangerous ● Dog owners don't clean up ● Bases sometimes moved, but switched out so no issues ● Special Olympics – bus stop here is crucial <p>Shelter and East Field</p> <ul style="list-style-type: none"> ● Good relationship between athletic field and shelter area ● Use shelter as picnic/potluck for large groups ● Use field by shelter to east for dogs? Not official OLA, but direct dogs here ● Field to the east slanted and not as well-maintained ● Foul balls at east field get lost in bushes; need netting over backstops in general
Segment 4	<ul style="list-style-type: none"> ● [No notes]
Segment 5	<ul style="list-style-type: none"> ● [No notes]
Segment 6	<ul style="list-style-type: none"> ● Well hidden; most did not know it was there ● Many have never been to mini-lid ● Under-used ● Mini-lid a hidden gem – why change it? ● Mini-lid used to watch blue angels ● Nice, private, natural around mini-lid ● Parking – leave as-is, don't have to worry about bikes going by here ● Needs better parking access ● Signage important here ● Signage to connect to entrance; make stronger connection to Burbank from mini-lid ● Light rail connection ● Nice trail from town center ● Take pressure off town center open space here ● Distinguish uses from other town center parks like Meadowdale, sculpture park ● Bikes go way too fast around trail ● Access point at intersection between SE 28th and Island Crest Way ● Possible opportunities for art, lighting, and athletic fields ● Use mini-lid for dog walking and natural areas; however can compete with families and small kids. Make a designated dog walking area

	<ul style="list-style-type: none">● Separate dogs from kids● Designated dog areas
Segment 7	<ul style="list-style-type: none">● [No notes]
Segment 8	<ul style="list-style-type: none">● Big parking lot● Fishing off-pier● Need restroom here● Boat launch● Use as a ski bus meeting spot● Great for boaters; well-designated● Gets congested when busy

Landscape & Open Space

Public Forum | SUMMARY

November 8, 2018

Topic	Comment Summary
Landscape amenities	<ul style="list-style-type: none"> ● Mature trees ● Open space ● Seasonal color ● Noise buffering along I-90 ● Wildlife, ecological functions
Landscape improvements	<ul style="list-style-type: none"> ● Keep existing overall character ● Consider more native and ecologically appropriate plants ● Ivy and invasive removal ● Improved maintenance ● Vegetation management where overgrowth is unsafe or blocking views ● Plant identification signage
Open space improvements	<ul style="list-style-type: none"> ● Signage for wayfinding and connectivity ● Improved accessibility for those with limited mobility ● Inclusive play integrated into parks ● Separation of users where there are conflicts (i.e. commuter bikes, off-leash dogs) ● Additional trash cans, benches, etc. ● Lighting (pedestrian-scale) for improved safety, but not lights everywhere ● Great views at tennis courts – consider reorganizing space to improve access to viewpoints, more connectivity to open space ● Organize and program spaces for year-round use where feasible ● More views into open space (safety / security) and out towards water or I-90 ● Balance of programmed and unprogrammed space ● Space for passive recreation
Connections	<ul style="list-style-type: none"> ● Connect Luther Burbank Lid to adjacent areas ● Connect town center across to the east south of I-90 ● Ensure connection continues through new Tully's site

Landscape & Open Space

Public Forum | MEETING NOTES

November 8, 2018

Plan Area

Notes

Overall

Most important about park and open space:

- Green space and open space
- Safety
- Connectedness
- Continuity from one end to another
- Mature trees
- Views (when possible) from park
- Healthy vegetation
- Open forested area (with views through)
- Native plants, ecologically appropriate plants
- Good signage/wayfinding / park maps
- Plant identification signage
- Bordered by large canopy trees
- Remains passive; "no vibrancy"
- Ballfields
- Speed reduction on bike path (ex. Trail roundabouts)
- Friendly for wildlife/birds
- Dogs off-leash / dogs not off-leash (safety concerns for people)
- Concerned about transit parking

Most important about existing park

- Light, plants, flexibility, serenity, accessible paths, benches, safety, inclusivity, walking (preserve loop), dogs, need more bus stops at east end, safety concern with fast bikes, love variety within park (sports, etc.), diversity of users, plenty of trash cans, views of water, plants/vegetation around trail, peaceful place, need more access points where you can pull up/lock boats

General Improvements

- Fast moving bikes should go on road along N Mercer Way
- Bikes along N Mercer Way would be less inclusive, less safe than along regional trail
- Food truck areas near fields A and B, near future Sound Transit, Luther Burbank Park, and east end boat launch
- Overall character: bring community together; more native, less maintenance; wild life forage
- Signage throughout
- Preserve unprogrammed open space
- No more picnic tables/benches
- Add more benches
- More trash/recycling cans
- "Friendship" circle

Landscape

- Clear out invasive plants and add natives in neighborhood near Luther Burbank Park
- Trail gets mossy, with roots buckling the trail surface – needs to be improved
- Noise buffering from trees
- Large trees
- Left natural
- More trees that get fall color – big maples
- Evergreens along bike trail to buffer sound
- Get rid of ivy/invasive plants
- Edges of the lid – keep for buffers
- All native plants

Connections

- Playgrounds or access to nearby private schools for public access to their playgrounds
- Maybe playground at open space near Island Crest Way (near Upper Luther Burbank lid)
- Better connection from Luther Burbank Lid to adjacent areas
- Connect town center across to the east south of I-90
- Distance markers on trails
- Disability access signs
- Need trail along south side of I-90 through town center
- Worried about connectivity with new Tully's site
- Formalize goat rail uphill towards Upper Luther Burbank lid
- South side of I-90 from town center to Gallagher Hill: make pedestrian only
- Better crossing near SE 36th near North Mercer Way (near city hall)
- Create shortcut from Snake Hill down to Luther Burbank lid – clear out invasives

- Concern about losing green space around Tully's – and preserve that path. Currently not well maintained, Tully's development may improve preserve/create connection
- Place for food trucks

Waterfronts – East End

- Works well now
- Kayak rentals would be good if they don't do this already
- It's a dead-end trail – create loop
- Better signage
- Uses during winter
- Add spaces for kids with disabilities

Waterfronts – West End

- Feels like it's always under construction
- Better signage
- Crosswalk in front of dog statue/playground
- Lots of litter
- Root barriers
- No root barriers
- Add spaces for kids with disabilities
- Low level lighting – walking at night
- Decrease money to near water and use money to do more thinning
- Planned thinning is needed
- Shrubs by playground and W Mercer Way are overgrown and leaning on walk
- Like wildflowers on Island Crest Way – do this elsewhere
- Water taxi stop – find the stop and include interpretive elements or sign
- Beach
- Boat launch – hand carry on trailers
- Connection to water trails
- Swimming
- Lights
- Status quo – leave along
- Periodic events – recycle, etc.
- Access good
- Better signage/directions to boat launch

Segment 1

- Beach

	<ul style="list-style-type: none"> ● Small boats ● Like street end ● Only individual/non-motorized boats ● Water trails connections / on water trail maps, etc. ● Swimming ● Lights ● Water taxi – might be better on east end with parking ● Feels like under construction ● Need to clean up ● Not welcoming ● Signage needed here and on street ends ● Lots of litter where I-90 ramps intersect with W Mercer Way ● Crosswalk needed to playground across W Mercer Way
Segment 2	<p>Current Use</p> <ul style="list-style-type: none"> ● Walk dog in Area B, go to Freshy's and back ● Dog run at the stacks and picnic shelter lawn ● Seafair at trail entry east of W Mercer Way ● Picnic at stacks, shelter ● Walking, biking, run, jog ● Views from Lid C ● Family activities ● Seafair ● Tennis courts used every day in summer ● Loop route: tennis courts → WMW → Stacks → Lid A → Trail → Park & Ride → ICW → Overlook lid → Town Center → Return ● Playground ● Picnic shelter – can handle large group; "no dogs" (sign) in that area ● Path for biking ● Basketball courts ● Dog walking – stacks, Lid A ● Homeless hang out by stacks ● Tennis courts get in the way of views ● Mercerdale is better for events ● Overall landscape character is perfect as-is, but lacks maintenance ● It's a nice park – love it ● Should not become more active <p>General Improvements</p>

- High priority: accessibility and maintenance
- Add trash cans
- Don't over-program – love flexibility of open space
- Walking – north end, not good signs, where work trucks use porta-pottis
- Bike in front of restroom creates conflict. Trail should go behind restroom
- Tennis courts block view – substitute amphitheater
- Bikers could stay on south side to town center
- Get serious bikers off the trail
- Overlooks, view blocked by wall at Lid C
- Would be good parking (SE 22nd Street)
- Nice to park and enjoy view
- Size of path should not change

Open Space

- Inclusive playgrounds
- Dying vegetation addressed
- Trash pickup, more trashcans
- Keep space flexible, open, “not crammed with stuff”
- Accessible to people with limited mobility – go to pops for input
- Exercise stations
- Repurpose tennis court area
- Food truck
- Restroom with single use rooms
- Trail has to be safe, especially with bikes
- Speed bumps
- Don't want high capacity trail
- More maintenance, irrigation
- Keep grass
- Replace trees
- No turf, no lights
- Pickleball
- No turf, no lights
- Keep B and C as park
- Barrier vegetation at field C too high
- Tall hedges at Field C block beautiful sunset
- Need bathrooms at Field C
- Field C feels underutilized – along with Field B, this used to be a large gathering area for fireworks
- Like that Field B is open with not too many trees

- No more picnic tables, benches
- No increase in impervious surface

Landscape

- Ivy – dislike, invasive
- Trees – like amount now, fall color good
- Walk from WMW to backside of stacks, good fall color
- Trees too tall in view corridors on WMW
- Hedges encroach on paths along WMW
- Not too many trees, like light
- Alternative groundcover = less mowing
- Finish concrete with interesting treatment
- P-Patch or flower garden in Area B open space
- Trails need more light, like bollard lights. Solar lights are not enough
- More areas to sit
- Like trees – lower height on the edge of view corridors at Lid A and Lid C
- Keep tree buffer – like tall tree perimeter
- Line of trees along 24th west of 79th
- No bushes for safety
- Small bushes
- Pockets of trees east of parking under overpass
- No bushes in area under overpass for safety – only low-growing shrubs here please
- Love dogwoods north of tennis courts
- Overgrown vegetation at trail entry east of W Mercer Way
- More native
- Use less water
- Wildflowers
- Perennials/no annuals
- More seating
- Community

Basketball Courts

- Basketball courts get used a lot
- On trail north of basketball court, it's hard to know where you're going

Tennis Courts and Stacks

- Great views from tennis court
- Highest point and best view from tennis courts
- Tennis courts get used a lot

	<ul style="list-style-type: none"> ● Very windy at tennis courts, maybe not best place for tennis ● Keep tennis courts ● Amphitheater at tennis courts ● Pickleball at tennis courts ● Don't like tennis courts ● No views ● Keep paths between tennis courts and SE 22nd the same width – wider trails will attract more bikers ● Dog walkers at stacks ● Informal dog park at stacks ● Transients and homeless hang out at stacks ● Walk to town center through trail
Segment 3	<p>Current Use</p> <ul style="list-style-type: none"> ● Views to the northeast from fields ● School organized events at playground – very popular ● Dog walkers in field east of playground ● Lid A underutilized – need bathroom, bikes might stay off center trail ● Picnic shelter great for large gatherings ● Big conflict area between restrooms and field A (peds and bikes) ● E-Bikes are a problem – too fast and less experienced ● Love the number of trees and plants ● Love the light ● Like variety of species of flowering/colors <p>Improvements</p> <ul style="list-style-type: none"> ● Make bikes go around back side of restroom ● No more programmed space ● Love the park as is – less is more ● Pervious/impervious surface balance – keep existing balance ● Put amphitheater back of playground ● Like trees on perimeter ● Like some separation along edges – adds to park-like atmosphere ● Connect bikes through area close to lid edge? Take commuters and serious bikers out of the park ● Food trucks in parking lot under overpass? ● Better signage to fields ● More seating at fields ● Need exercise equipment – would be a great addition

	<ul style="list-style-type: none"> ● Bring food trucks (would help small kids, special needs) ● Change flat greenery to reduce mowing – clover ● Need lighting – without it there's tripping on the trail ● Keep buffer at edge of lid
Segment 4	<ul style="list-style-type: none"> ● Nice area on south side of I-90 directly east of 76th Ave SE
Segment 5	<ul style="list-style-type: none"> ● [none]
Segment 6	<ul style="list-style-type: none"> ● Trail connection from I-90 trail to Luther Burbank Park could be part of the sculpture garden, with signage ● Add signage as Luther Burbank access to lid ● South side of the Luther Burbank Lid - improve signs, vegetation, and have a trail sign ● Views blocked now into Luther Burbank Lid ● Connect Luther Burbank Lid from southeast side ● Enhance pocket park on Snake Hill ● Need connection from Island Crest Way intersection to Luther Burbank Lid ● Island Crest Way open space: great fall color, need signage here to welcome visitors to Luther Burbank, needs focal point (fountains, etc.) ● Fountain or bocce ball at intersection of Island Crest Way and SE 28th Street
Segment 7	<ul style="list-style-type: none"> ● Pedestrians only in forested area east of 84th Ave SE ● Playground near Shorewood Heights neighborhood ● Existing trails in forested area south of I-90 and east of 84th Ave SE – connect these throughout
Segment 8	<ul style="list-style-type: none"> ● Bus access gone south of SE 36th St and N Mercer Way ● Hard to cross from SE 36th St across N Mercer Way ramp, and development in area makes it worse ● Keep kayak rentals ● Need year-round options for boat launch ● Boat launch works good now ● Ski buses ● Recycle fair ● Enough parking ● Signage improved (people get lost) ● Walking is dead-end with sidewalk ● Better signage

Arts & Culture Public Forum | SUMMARY

November 29, 2018

Topic	Comment Summary
Art improvement guidelines	<ul style="list-style-type: none"> ● Use art to help improved wayfinding and access ● Greater variety in types of art, especially interactive art ● Greater enjoyment of art for all ages ● Greater relevance in art subject matter ● Improved connection between art installations ● Stronger integration with the surrounding context ● Respect the natural environment as locations and placements for art are considered
Types of Art Desired	<ul style="list-style-type: none"> ● Interactive art – consider age groups, natural processes, functionality, and life cycles of art (long & short-term work) ● Art that ties into public utilities and functional aspects of the site ● Meaningful art – consider cultural resources, nature, connections to history, etc. ● Artful landscape & eco-art ● Iconic work/signature piece/landmark art desired by some; others want to keep park natural and ensure art doesn't overpower the site
Preferred locations	<ul style="list-style-type: none"> ● Light Rail station and related utilities ● Connect places where art is installed, especially between Town Center, Mercerdale Park, Upper Luther lid, and Luther Burbank Park ● Priority for new art should be underserved areas where beautification is needed ● Keep lidded park natural and uncluttered with art ● Art at boat launches should be calm and meditative

Aubrey Davis Park Master Plan

Arts & Culture Public Forum | MEETING NOTES

November 29, 2018

Plan Area

Notes

Overall

What do you like about existing art on Mercer Island?

- Adds to your walks in the park
- Place to stop, introduce to friends, comment & reflect
- Multi-use for sculpture gallery (e.g. walk dogs, stop to look)
- Earthwork (source) → moving in it, interactive elements
- Intergenerational works
- "Cyclemates" invites interaction & its connection to the community
- Immersive art experience; moving through the stacks for example
- Spatial element
- "Playful Pup" is a favorite among the community
- "Flock" is also well-known
- "Primavera" and "Gateway Figures" are iconic
- "Primavera" is vibrant, colorful, big – pulls people in
- "Primavera" – first sculpture, a lot of effort to bring it to Mercer Island
- Very visible; drive by "Primavera" a lot
- Bench & chaise are really beautiful sculptures
- Stumble upon works of art – the joy of discovery (like with the Yearling)
- Tree grates in Town Center are beautifying something that's already there
- Works that incorporate natural elements; work with what's there
- Underserved parts of the park – fill in the areas that don't have as much art, but also maintain
- Art one of the first things noticed
- The Source – don't really know it's art, but kids interact with it
- The Yearling and Playful Pup – small scale attracts kids
- The Source is inviting, durable, and playful
- Like interactive elements of works like Cyclemates

What could be improved about existing art on Mercer Island?

Type of Art

- Musical work to engage audiences
- Artwork that responds to or intervenes with how site is used – biking, pedestrian
- Science and technology to create interactive artwork
- Life cycle of art – timelines – long and short-term work
- Shifting of work – reuse or natural resources (fallen trees, other natural materials)
- Create functional work (tree houses, bird habitats)
- Art that creates function and protection (barrier from the rain, responds to the elements)
- Art and experiences that change over time – topiary, natural changes...
- Green/eco art
- Artful landscape is lacking
- No arbors like other communities – walking through the art
- Miss viewpoints in the park; see the sunset
- Would be nice to experience the works at night in the dark
- Experiences for teenagers are lacking
- Not any of the works are interactive
- Kids sitting on Paso Colt a lot
- Kids want something they can climb on – probably why they like “Between Two Worlds” at the library
- Scale allows for different experiences/entry points
- Facilities aren't conducive for performers/creating art
- No space for temporary experiences/installations
- Place to display kid/class art
- Temporary exhibition space with Sound Transit would be nice
- Hidden sculptures you can interact with your kids
- Art should make you think/feel
- Vision for our current collection to integrate, to make more approachable, to make more accessible, to learn more about it
- Art can be powerful – consider if its too provocative for Mercer Island
- Not a lot of relevant art, or temporary art/space for temporary art
- Smokestack area needs art
- Lacking traditions around existing pieces – how do we create those traditions
- Art is random and not well-displayed – pieces I like and pieces I don't but area is plain (GHSG); prevents the opportunity to interact
- People aren't going to the park for art but art you would stop to look at collections; don't see people on the benches looking at art
- Collection mentality – not enough understanding about the why
- Need unified design

- Create outdoor facilities/space for pop-up performance (e.g. busking)
- What's the theme/vision for art/park
- Stacks view impacts neighbors – art can add value to neighborhood
- Create something iconic on Mercer Island – the Stacks
- Incorporate musical spaces – interactive “wall”
- I-90 noise – can it be used as part of art experience (i.e. structures that help reflect sound)
- Expand art experience into Light Rail – work with Sound Transit
- Consider maintenance implications
- Vision and character of Aubrey Davis Park
 - Original intent included art bridge to bridge
 - Create art experience for park users and cyclists
 - Gathering place for cycling groups
- Consider how to pay for art
- Performance art/buskers near Luther Burbank Park
- Tully's site – create space for art here
- Use Aubrey Davis Park to revitalize Town Center
- Interactive, educational – teaching gardens
- Find a balance, don't make park too busy
- Use our climate
- Engage younger ages (teenagers)
- More vegetation/landscaping around ballfields areas – create barrier, keep flow of natural park
- Balance of art/natural spaces – respect nature that exists, including art
- Landscape architects involved in art plan
- Create habitat spaces (birds, butterflies)
- Tennis courts – opportunity for more green
- Art is random
- Keep grass and trees
- Don't add more sculptures
- Lid park does not need sculpture
- Art focused on wildlife (birdhouse, butterfly gardens, dead trees that are bird habitats, etc.)
- Habitat for wildlife through the arts

Location & Wayfinding

- People don't know what exists and where it is – need map
- Need better maps/wayfinding for public arts – tangible in addition to high-tech
- Wayfinding opportunities when you get off the light rail is needed – what's planned now
- No logical place for social activities
- Visibility of works of art at intersections, etc.

- Location → bench by "Playful Pup"
- Love "Playful Pup", need to be on cement; can it be integrated better in the landscape' feels isolated; same bench & concrete as everywhere else is boring
- Seating/comforts to linger at art sites; make it a place to go
- Benches – do they really serve the community; what about companion seating
- It could be more discoverable; feel like I'm missing out because I don't know
- Lacking access points
- Park is already beautiful/doesn't need to be beautified; is it the ideal place to experience art
- Beautify existing art
- Should we use park land for art; are some of the existing works better served in different locations
- Poor vantage points with sculptures "in a line" – can't see it when you're on a walk
- Gateway figures – actually see and notice these
- Discoverability
- Create a treasure hunt for art
- Enhance existing structures that are ugly – don't want the natural part cluttered
- Lots of walkers on Mercer Island – nothing drawing them to art along their way
- Wayfinding, treasure hunt
- Utilize existing natural stopping points along trail – make it discoverable
- More accessible/engaging art
- Greta Hackett – don't walk up to art
- Lid area – enhancing existing elements
- Green park not the right space for large-scale art – more appropriate in town center or maybe Mercerdale Park
- Move art to where beautification is needed
- Lid Park not the best place for art – town center and light rail center instead
- Green space already beautiful
- Light rail station entrances – include art, create connection to Aubrey Davis Park
- Along 78th - same look from Aubrey Davis Park to Mercerdale Park; uniformity to town center look; native plants, soften urban look
- Art should go in Town Center – art walk from Mercerdale Park to Town Center; from Tully's to mini-lid
- Mercerdale Park – recycling center – history – building is historic
- Use art as a way of connecting Aubrey Davis Park to Luther Burbank Park (across mini-lid)
- Lead people to mini-lid – create connection
- Wayfinding, pedestrian-friendly
- Uniform wayfinding/signage along AUBREY DAVIS PARK
- Interact with art on trail, passing through

- Create connection, flow of art throughout; make people want to explore
- Highlight expanse of park, experience entire span
- Mark each entrance to trail – arch, sign
- Use sculptures as wayfinding
- Art form for entire park that carries through and connects with wayfinding
- Graphic design for signs and distances to destinations – around trails, at entrances, to town center
- Using water access areas as meditative/quiet spaces
- Art piece at boat launch

Where are opportunities?

- East-west connection with art – create an I-90 art way
- Sound Transit station entrances
- Modes of transportation tied into trail
- Gateway, town center
- Feroglia Fields
- Shorewood entrance
- Sound Transit utility areas
- Continuous experience from light rail to Town Center
- Activate the space across from Freshy's
- Have exhibits rotate around town center
- Entry to mini-lid needs activation
- Take existing restroom and transform it

Cultural resources/heritage – ideas for what you could interpret / highlight

- Two cities that merged
- Rural - "take boat to go on vacation"
- Where is old ferrydock – highlight location / interpretive element nearby or at viewpoint where you can see it
- Don't feel culture connection
- History of logging, maker mentality
- Farming
- Opera house – home in the firs
- Spot for sunken forest information
- Sound Transit station as cultural info center
- When the bridge sunk
- How did native people use this island
- Signs on freeway about park
- Native artists

- Connection to land and wildlife with native American context/culture
- Historical events that are location specific
- “I don’t want to see it, hear it & smell it” – history of how the park came to be
- Keep it natural, improve natural
- Native American history – hunting; thought island sunk at night
- Ferry used to be the way here
- Roanoke landing
- Cows – Dairy barn ruins in Luther Burbank
- Durable board games
- Sleepy hunting cabins – vacation spots used to be why people came to the island
- Anne Frank, Japanese internment – examples of powerful interpretive spaces
- Redlining of N. Seattle
- 1st African American in Mercer Island
- Now did we become more diverse
- Utilization of space – how did density happen
- Mercer Island town & city – mid-60’s
- East Seattle – small lots
- Geology – silt, rock
- Sunken forest
- 1 mile of ice – geologic time
- Climate change – how will it look in 100 years
- Changing levels of Lake Washington
- Families and their stories – how they can interact with or create work at site
- Ben Werner – mini-lid connects Luther Burbank Park with upper Luther
- Sign – Aubrey Davis Park history
- How the park came to be (near stacks)
- Landscaping – more native plants tie in with art
- Sound Transit – integrate AUBREY DAVIS PARK history into station
- 77th – concern about loss of landscaping with Sound Transit; soften urban environment and incorporate native landscape

Examples

- Gasworks Park as “celebrate history”
- Olympic Sculpture Park
- Make natural experience grand
- Dr. Albert Schweitzer Park – told poetry of his thoughts through park
- Storm King – grand scale, sculpture fits
- Grand Coulee – lightshow
- Tennis courts take great viewpoint

- Sunset project on stacks and view of I-90
- Streetscape project – embedded street names
- Horseshoe, milk bottle
- Exhibit of redwood cross-section

From examples shown in presentation, what did you like?

- "Bean" creates landmark, reason to gather
- Gathering place after performances
- Art that encourages you to stay in a functional space
- Art that can be used as cover/rain protection
- Interactive, family oriented – kids can play on, with
- Different approaches in different areas of Aubrey Davis Park versus different spaces
- Incorporate public utilities with new development
- Bring living performance art to existing park/art spaces – temporary installations/performers; more functional; use of resources (not just sculptures)
- Lifecycle of art – transforming existing works
- Determine long term, what can shift
- Pop-ups transform functional to use in a new way
- Liked the house example – transformation and function
- Use art to evoke feeling in regular spaces
- Using stacks – lighting
- Incorporating history – photos, abstract pieces
- Pop-ups can draw new audiences, visitors; new, unusual experiences

What is your vision for art in the park?

- Minimalist, provocative, engaging, grass, temporary, destination, interactive, tranquil, inclusive, views, thought-provoking, discovery, minimalist, educational, natural, green, wildlife, community, fun, light rail, greenscape

Segment

1

General

- Art to not add more impervious/paved surfaces
- Keep north side of AUBREY DAVIS PARK natural area – no art here; art west of Area C and east of lid edge around walk; keep lidded park discrete
- Need maps throughout lidded park – digital opportunity
- Art walk from town center sculpture park to mini-lid
- Blur lines of art and sculpture between sound transit station, town center, trail & park
- Get community involved in curating art
- Temporary art that makes you think
- Lots of art but no one knows where it is

- More QR codes to learn about art pieces – go for more info on-line
- More performing arts/performance pop-ups
- Accessibility → middle of the grass
- Art on a pedestal → views
- Scale, inviting → interaction
- Vibrant, colorful, big
- Also love the small pieces – discovery, joy
- Some areas lack art & experience
- Would like to see bigger scale move through & experience
- Use existing materials as canvas (e.g. chain link fence)
- Display art in collections

West End

- Art on freeway into island
- Sound is loud – art mitigation

Area C and B

- Playful Pup – like having the bench; more of a place to go
- Don't like the bench
- Art on corners is more visible → climb on

Stacks and tennis court area

- Best sunsets from tennis courts – allow more natural around trees
- Opportunity for more green and softer use here
- Keep natural or improve natural around stacks
- Projections/lights on stacks (sunsets)
- Green walls around stacks – can see I-90 from here (interpret)
- “Aubrey Davis Park is...” (history, what these stacks are, etc.)
- Would benefit from additional art
- Use this area for something big
- Provide opportunity for teenagers to engage in art
- Shaft for different experience
- Temporary projection; yearly program

Area A & East of Stacks

- Opportunity for engaging with history near restroom – maybe transitional art here since more mobile
- Corner near restroom is good place for art – would work with the landscape
- Activate corner at SE 24th and 76th

- Kids climb on Yearling here
- Cyclist experiences

Sound Transit Area

- Sound Transit – rotating art mostly here
- Use station as map/hub for art culture
- Art to help visual of these bridge crossings
- Aubrey Davis as the person – interpretive here as history included WDOT notes, etc.
- Provide a map of art (interactive?) with art at light rail station
- Provide opportunity for kids/local community students to display their art
- Sound mitigation at transit station

Town Center, sculpture garden, and connections

- Art better purpose here where near concrete
- Art walk from town center down 77th to Mercerdale Park with food along the way
- History – recycling center by Mercer Island high school students and first started recycling – turn building into educational center on recycling
- Tough to get across Island Crest Way, so either need to connect (more than one sculpture) OR let people back over
- Sculpture garden works
- Don't like art in a row
- Love sculpture garden, provide a space to enjoy a glass of wine
- Gateway Figure most iconic
- Love the wavy branches
- Seems random, disconnected
- Very playful
- Primavera stands out, very popular
- Burbank Lid – art is hidden in the corner, can't see

Segment 2

Luther Burbank mini-lid and connections

- Sculpture at Luther Burbank trail connection hill
- "Mercy" at mini-lid
- Sculpture park connects across mini-lid to Luther Burbank Park
- Sculpture connects along south of I-90 forested area
- Sound Transit utility at Shorewood – make it better visually with art, etc.
- King County Forward Thrust – 1st send-off at Luther Burbank Park
- History/purpose – to green connection from both sides of Luther Burbank Park
- Most expensive section in nation at the time

- Seattle to Boston & we were last piece in cross-country freeway system (held up by Aubrey Davis Park open space)
- Last section of highway
- Use trail as continuation of transportation transition over time
- Mini-lid could be connected to Town Center & down Luther Burbank
- The Source – More interactive, accommodates different ages, like very much, playful
- Don't want park cluttered with art
- Use existing materials in that park as convos for art
- Not everyone is high-tech – would be nice to have info for art for everyone
- Take existing art and transform
- Kids like the Dragon on Island Crest Way

East Boat Launch

- Need sound mitigation at east boat launch – loud
- Create calm water experience

Mercer Island Aubrey Davis Park

April 16, 2019 | Survey Analysis

The Mercer Island Aubrey Davis Park Survey was designed to complement the Open House and provide an additional way for people to provide input to the design team on the vision and goals of the Aubrey Davis Master Plan. Near the beginning of the survey period a response option was added to questions 14 through 21 that allowed respondents to choose an option that would just improve existing conditions. Of the 113 total survey respondents, 20 responses occurred prior to that change and respondents were allowed to retake the survey if they chose. Below is a summary of all responses received, organized by section and question.

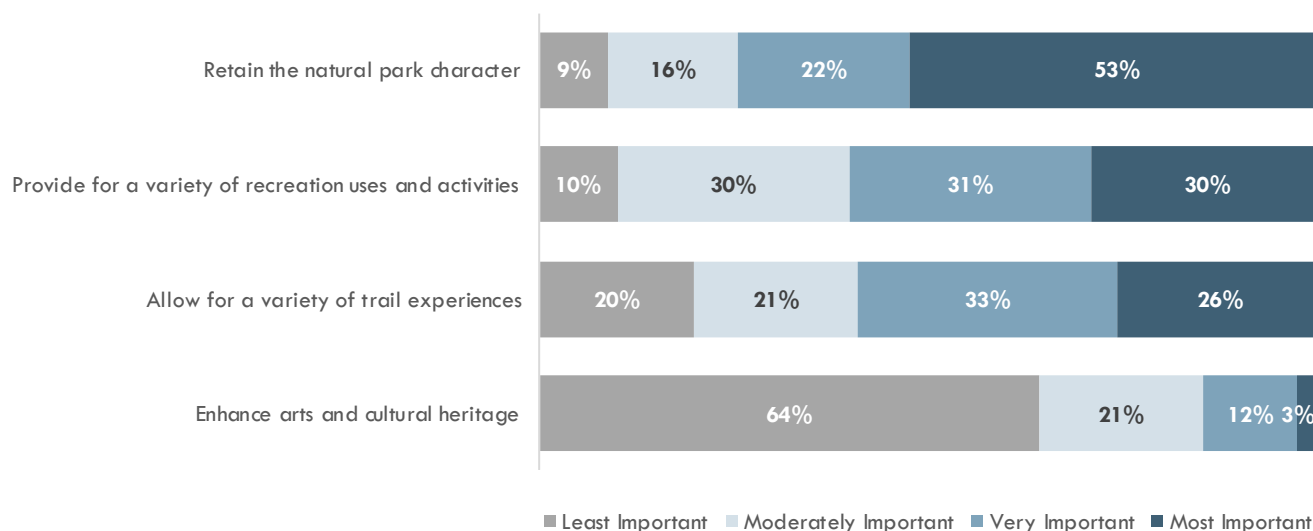
Welcome

1. Would you like more information about the master plan, timeline, and process or would you rather get started on the survey?

	Count	Percent
More information please!	35	31%
Let's get started!	78	69%
Answered	113	
Skipped	0	

Draft Vision, Goals, and Objectives

2. Please rate the importance of each draft goal from least to most important.



3. Is there anything missing or that you'd change about the draft vision or goals? Leave us a note here.

	Count	Percent
Better signage	1	2%
Don't change anything	6	13%
Maintain existing art	1	2%
Nothing missing	2	4%
Prioritize athletic fields	2	4%
Question about survey	2	4%
Recognize as transportation corridor/accommodate growing multimodal needs	7	15%
Reduce bike use/Slow down bikers	4	8%
Rename the park	1	2%
Retain natural character	11	23%
Safety and security of users	11	23%
Separate uses (bike/ped)	3	6%
The park should be a place for everyone/accommodate all users	2	4%
Answered	48	
Skipped	65	

Note: Items listed in this summary were compiled from key words or phrases in the open-ended responses.

Sample open-ended responses

- The corridor needs to be recognized as the high-volume bike/pedestrian space it is and prioritized as such.
- Very important-please maintain the "bikeability" of the trail and provide means for safe sharing of trail with pedestrians (signage, etc.)
- Need to emphasize that expanding the width of the trail to allow for separation of use and to accommodate the expected increase in users over the coming years is imperative for safety and ease of use
- Safety and security of users is the highest importance.
- Keeping bicycles off the trail is by far the most important issue that we must solve. Here we should have zero tolerance for any offenders.
- Uses are not just recreational; it is also a vital commuting link.
- The park is mostly great as is. Need to remediate soil and improve irrigation to preserve trees. Reduce bike speeds to make pedestrians safer. Other than that, if it ain't broke don't fix it!
- The trail is both a commuter route and a recreational facility. Ensure that the vision of the trail can accommodate both user groups in a compatible manner.
- ...all changes should first comply with Aubrey's vision of not wanting to "see it, hear it, or smell it."
- Separating conflicting uses is the key to success here.
- The vision and goals don't seem to reflect the "place for everyone" ethos.
- Please leave the park alone, this is not a necessity at this time and the budget constraints complicate the picture. You will inherit a lot of citizen anger if these plans come to fruition

Trails

4. How do you or would you typically use the trail?

	Count	Percent
On wheels - Faster through cyclist	25	28%
On wheels - Fitness cyclist/group rider	21	24%
On wheels - E-bike cyclist	12	14%
On wheels - Casual through cyclist	23	26%
On wheels - Casual cyclist	21	24%
On wheels - First/last miler (e.g. bikeshare)	7	8%
On wheels - Family cyclist	18	20%
On wheels - Alternative wheels (scooter, skateboard, etc.)	3	3%
On wheels - Assisted mobility	1	1%
On foot - Jogger/runner	26	30%
On foot - Fitness pedestrian	32	36%
On foot - Casual pedestrian	40	45%
On foot - Group walking	12	14%
On foot - Walking with strollers, dogs, etc.	20	23%
On foot - Elderly or senior walker	15	17%
On foot - Visually impaired pedestrian	3	3%
I don't use the trail and/or don't think I would in the future	1	1%
Other (please specify)	9	10%
On wheels - Bicycle commuter	1	1%
On wheels - Child learning to ride	1	1%
On wheels/foot - Family with pedestrians, strollers, and children learning to ride	1	1%
On foot - Commuting	2	2%
On foot - Walking with bicycle	1	1%
Other Comment	2	2%
Answered	88	
Skipped	25	

Note: Respondents could choose multiple responses if they use the trail in different ways. Items listed under "other" were compiled from key words or phrases in the open-ended responses.

- The trails in Aubrey Davis Park are used by a variety of users, both on foot (152 uses) and on wheels (134 uses). Many respondents reported using the trail in a variety of ways.
- The most commonly reported use was on foot as a casual pedestrian (40 respondents), with fitness pedestrians a close second (32 respondents), and joggers/runners the third most common (26 respondents).
- The most commonly reported uses on wheels include: faster thru cyclists (25 responses), casual through cyclists (23 responses), and fitness cyclists (21 responses) or casual cyclists (21 responses).

Sample open-ended responses

- *Bicycle groups and enthusiasts have made a big push through lobbying to have increased access to the roads. Aubrey Davis Park should not turn into an alternative pathway for bikes.*
- *Children beginning to ride bicycles in a safe place with hills and family nearby.*
- *With grandkids, either in stroller, walking or on little bikes*

5. Are there other trail users missing from the list provided?

	Count	Percent
Bicycle commuters	3	10%
Children	5	16%
Dog-walkers	8	26%
Family and kids	1	3%
No users missing	12	39%
Scooters	1	3%
Skaters	1	3%
Taco Truck	1	3%
Trail-crossers	1	3%
Answered	31	
Skipped	82	

Note: Items listed in this summary were compiled from key words or phrases in the open-ended responses.

Sample open-ended responses

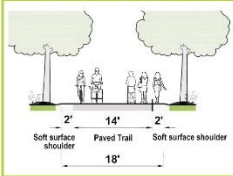
- *Dogs, even on a leash, are a constant threat to bicyclists and other walkers.*
- *Stand around and talk folks. Crossing trail only folks.*
- *Commuters to P&R. I use trail both on foot and bike to P&R. I guess this falls under "first/last mile", except that you specify e-share bike with that.*
- *Solo kids walking to school, library, friends, park, baseball/soccer fields...*
- *Taco Truck. Please take this in the context of Parks are gathering places for people, family, kids, groups. The trails, both pedestrian and bike allow access. A food truck provides a focal point for group activities.*

LIDDED PARK TRAILS

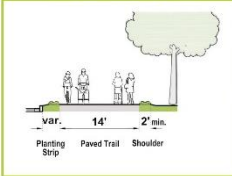


SITE PLAN

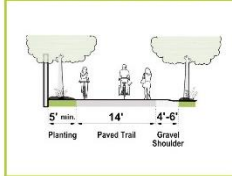
CROSS SECTION A



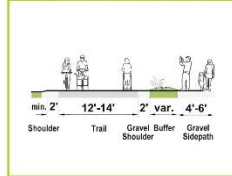
CROSS SECTION B



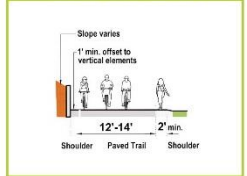
CROSS SECTION C
















CROSS SECTION D



CROSS SECTION E



6. Which trail section do you prefer for this part of the park?

	Count	Percent	
Cross Section A	21	29%	
Cross Section B	3	4%	
Cross Section C	6	8%	
Cross Section D	22	31%	
Cross Section E	2	3%	
Less than 14 feet wide	10	14%	
More than 14 feet wide	10	14%	
Other (please specify)	28	39%	
12-foot trail with 2-3ft pedestrian path on side	1	1%	
Don't redirect bikes	1	1%	
Keep existing width	8	11%	
Keep trees	1	1%	
Model after Burke Gilman Trail near UW	1	1%	
Move trail south of ball field	1	1%	
Narrow the paths	3	4%	
Paved, gravel shoulder	1	1%	
Prioritize pedestrians and discourage bikers	5	7%	
Questions about or unhappy with survey	3	4%	
Separation of bicyclists and pedestrians	3	4%	
Widen trail to accommodate all users	1	1%	
Answered		72	
Skipped		41	

Note: Items listed under "other" were compiled from key words or phrases in the open-ended responses. Respondents could indicate multiple items in their comment, each is represented in the summary.

- The most common response to this question was a choice other than those presented. Of the other options, 8 respondents wanted to keep the existing width, 3 wanted to narrow the path, and 1 wanted to widen the path.
- Of the proposed options, 22 respondents preferred Cross Section D, and 21 respondents preferred Cross Section A.

Sample open-ended responses

- *Trail should be improved and widened to the maximum extent possible to accommodate a mix of all users which will increase in the future. The wider the trail, the safer it will be for ALL users....*
- *Don't like any. They all look like a road not a path. May as well add cars with those designs.*
- *Keep it the way it is today. Bikes have alternative options.*
- *None. WSDOT requires 10' wide trails if there is heavy traffic which there is not in the park. I think bikes need to be excluded from the park and the trail left at its current width. Otherwise traffic calming like roundabouts will be necessary. There have already been two very serious bicycle injuries on the trail.*

7. What other trail improvements or modifications should be considered in this section of the park?

	Count	Percent
Art spaces with seating	1	3%
Clear signage	6	15%
Do nothing	4	10%
Exclude cyclists	3	8%
Handicap Parking	1	3%
Increased visibility of pedestrians/bicyclists at road inte	4	10%
Narrow trails	2	5%
Separation of bicyclists and pedestrians	11	28%
Preserve natural spaces (maintain existing and don't en	3	8%
Remove gravel hazards from trails	1	3%
Add traffic calming measures to slow cyclists	8	21%
Increase sightlines	1	3%
Add water station	1	3%
Widen the trail	1	3%
Answered	39	
Skipped	74	

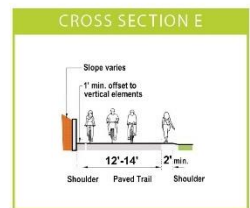
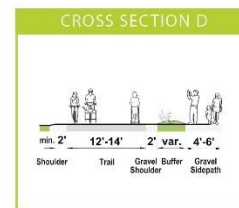
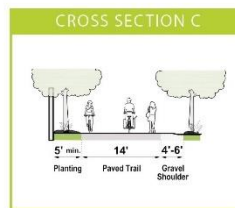
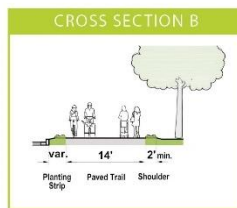
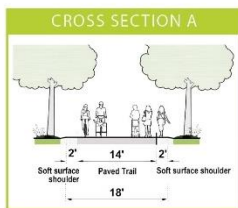
Note: Items listed in this summary were compiled from key words or phrases in the open-ended responses. Respondents could indicate multiple items in their comment, each is represented in the summary.

- The most commonly reported improvement needed in this section of the trail is separating bicyclists and pedestrians. Suggested improvements included everything from pavement markings (surface striping) to physical barriers. Some respondents did not indicate which type of separation would be best, but noted it was important.
- The second most commonly noted improvement is increasing the use of traffic calming measures to slow cyclists in this area. Several ways were noted: roundabouts, narrower trails, and speed bumps.
- There was also an indication that signage could be improved on this part of the trail. Proposed improvements included signs that establish user norms, signs indicating “slow” areas, and signs indicating the trail as a cross-island trail.




















Sample open-ended responses

- *Small garden sitting areas, public art, and other slower spaces available adjacent to the trail to act as "eddy zones" for those moving along the trail at a leisurely pace. These spaces shouldn't conflict or detract from the experience of users like commuter cyclists, runners, or recreational riders who value a direct, uninhibited path.*
- *Handicap parking to increase access for mobility impaired park visitors. It needs to be close to provide real accessibility.*
- *The trails are fine. Changing them will diminish them.*
- *Your plans for bicycle freeways in a neighborhood park are inappropriate.*
- *.... It comes back to money. Where are you going to get the money from? I hope you are not planning on putting a levy on the ballot for us to approve any construction for this trail.*

TOWN CENTER TRAILS



8. Which trail section do you prefer for this part of the park?

	Count	Percent	
Cross Section A	16	23%	
Cross Section B	5	7%	
Cross Section C	3	4%	
Cross Section D	20	29%	
Cross Section E	5	7%	
Less than 14 feet wide	9	13%	
More than 14 feet wide	7	10%	
Other (please specify)	21	30%	
6 ft. wide trail	1	1%	
24th needs different treatment than trails	1	1%	
Clear signage	1	1%	
Do nothing (keep existing width)	5	7%	
Make space next to trail	1	1%	
Narrow the trail	2	3%	
Traffic calming	2	3%	
Prioritize pedestrians and discourage bikers	5	7%	
Questions about or unhappy with survey	4	6%	
Separate bicyclists and pedestrians (including in commute	2	3%	
Widen trail to accommodate all users	1	1%	
Answered		69	
Skipped		44	

Note: Items listed under “other” were compiled from key words or phrases in the open-ended responses. Respondents could indicate multiple items in their comment, each is represented in the summary.

- The most common response to this question was “Other (please specify)”. Of the other options, 5 respondents wanted to keep the existing width and 5 wanted to prioritize pedestrians and discourage cyclist use on this part of the trail.
- Of the proposed options, 20 respondents preferred Cross Section D, and 16 respondents preferred Cross Section A.

Sample open-ended responses

- *Speed bumps where necessary. "Slow" signs for bikers. Don't make the trail into a highway.*
- *Why are you starting from the premise that bicycles will migrate from North Mercer to the lid trail?*
- *Clearly indicate transit passenger loading zones and separate bicycle facilities from the waiting transit passengers.*
- *I hate those designs. Why the new road for the park?*

9. What other trail improvements or modifications should be considered in this section of the park?

	Count	Percent
Accomodate all users	1	4%
Add traffic calming measures to slow cyclists	1	4%
Clear signage	5	18%
Crosswalk marking	2	7%
Do nothing/None needed	5	18%
Exclude cyclists	2	7%
Increase sightlines	1	4%
Narrow trails	1	4%
Preserve natural spaces (maintain existing and don't encroach	3	11%
Prioritize pedestrians	2	7%
Questions about survey	2	7%
Separation of bicyclists and pedestrians	6	21%
Answered	28	
Skipped	85	

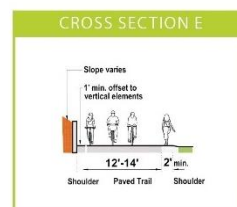
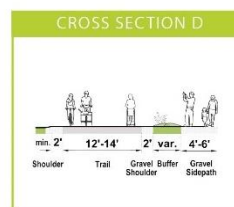
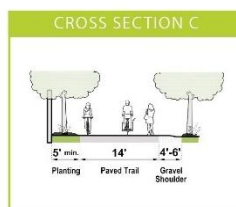
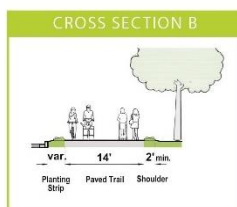
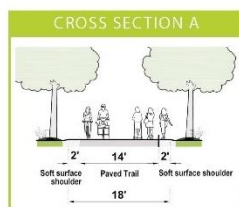
Note: Items listed in this summary were compiled from key words or phrases in the open-ended responses. Respondents could indicate multiple items in their comment, each is represented in the summary.

- The most commonly reported improvement needed in this section of the trail is separating bicyclists and pedestrians. Suggested improvements included pavement striping and solid barriers. There were general comments about the need to increase safety and reduce conflict between pedestrians and bicyclists
- The two second most commonly noted improvements are either 1) to do nothing or 2) to improve signage. Proposed improvements to signage included: using sharrows on the road and obvious signage to divert around the Park and Ride.


















Sample open-ended responses

- *76th Ave SE and Island Crest/SE 26th St. need to have their 'slipways' (dedicated right turn lanes with yield) removed. These are highly dangerous intersections for cyclists and pedestrians resulting in severe injuries/death when accidents occur. Narrower crossings and raised cycle/pedestrian crossings are critical.*
- *During commute hours, this section is prone to conflicts between pedestrians trying to access the bus stop and through bicycle commuters. The eastern end of this section is badly lit and dangerous for night time cyclists. I avoided this entire section as a bicycle commuter.*
- *If you intend to make 24th a formal part of the path then it needs major improvements. Right now it is a residential street and the bikes blow stop signs and crosswalks constantly. It isn't safe.*
- *Looks like you want to divert folks around the park & ride? Good luck w/ that. The obvious path is in front of it. You're going to need something even better than signs to encourage that.*
- *Less trees/planting work that requires maintenance (e.g. the opposite of what you did in LBP). The city claims it's out of \$ but is taking our mature trees and adding plantings with a lot of long term maintenance requirements. Why? Let it be until we can afford it.*

EAST SEGMENT TRAILS



10. Which trail section do you prefer for this part of the park?

	Count	Percent	
Cross Section A	19	28%	
Cross Section B	4	6%	
Cross Section C	5	7%	
Cross Section D	20	29%	
Cross Section E	2	3%	
Less than 14 feet wide	10	14%	
More than 14 feet wide	8	12%	
Other (please specify)	20	29%	
Do nothing (keep existing width)	6	9%	
Narrow the trail	1	1%	
Traffic calming	2	3%	
Prioritize pedestrians and discourage bikers	4	6%	
Protect trees	1	1%	
Questions about or unhappy with survey	1	1%	
Separate bicyclists and pedestrians	2	3%	
Street sharrows for cyclists	1	1%	
Widen trail to accommodate all users	1	1%	
Answered	69		
Skipped	44		

Note: Items listed under “other” were compiled from key words or phrases in the open-ended responses. Respondents could indicate multiple items in their comment, each is represented in the summary.

- The most common trail section preferred in this part of the park is Cross Section D (20 respondents).
- The second most common trail section preferred in this part of the park is Cross Section A.
- The same number of respondents that prefer Cross Section D also indicated an “other” preference. Of those indicating a different option, most wanted to do nothing or keep the existing trail width (6 respondents) and four respondents wanted to prioritize pedestrians and discourage bikers.

Sample open-ended responses

- *None of the options. Just leave it as it is.*
- *The trail along WMW does not need to be changed.*
- *Street sharrows in Town Center are the preferred in the cycling community.*

11. What other trail improvements or modifications should be considered in this section of the park?

	Count	Percent	
Better signage	1	5%	
Do nothing/None	4	21%	
Exclude dogs from trail	1	5%	
Handicap parking	1	5%	
Improve trail connections	1	5%	
Improve sightlines	1	5%	
Marked road crossing	1	5%	
Path striping	2	11%	
Prioritize pedestrians	1	5%	
Questions about or unhappy with survey	2	11%	
Separation of bicyclists and pedestrians	3	16%	
Traffic calming	1	5%	
Water fountains	1	5%	
Widen trail	1	5%	
Answered	19		
Skipped	94		

Note: Items listed in this summary were compiled from key words or phrases in the open-ended responses. Respondents could indicate multiple items in their comment, each is represented in the summary.

- 19 respondents provided information about other trail improvements.
- 4 respondents wanted to do nothing in this section of the park.
- 3 respondents wanted pedestrians and bicyclists to be separated either by providing a gravel path for pedestrians, diverting bicyclists to the street, or road markings/textures to indicate uses.

Sample open-ended responses

- More focus needs to be placed on the connection between East Mercer and the Trail. This is a very high demand route that is very dangerous for bicyclists and pedestrians.
- You put cyclists at risk when you mix them with pedestrians. They don't want to be there and you should do all to assist them finding good routes on the street.
- I think if you can provide a separate, gravel pedestrian path it would be nice. I just don't think there's space for it through most of this area.
- Handicap access Parking. This is directly adjacent to senior living facilities and there is no additional parking of any kind.
- Please leave the trails as is. What problem are you trying to solve?
- You will have to calm speeds if bikes, e-bikes and pedestrians are going to share this trail. Several segments east of the TC don't have 18' in width and so you will end up with concrete from the I-90 retaining wall to NMW which will be around 40' of pure pavement IN A PARK. Plus, there will be several sections that don't have 18' so the trail will narrow creating risks for everyone.
- Less is more.

Park Programming and Activities

ACTIVITIES

GATHERING



FAMILY ACTIVITIES



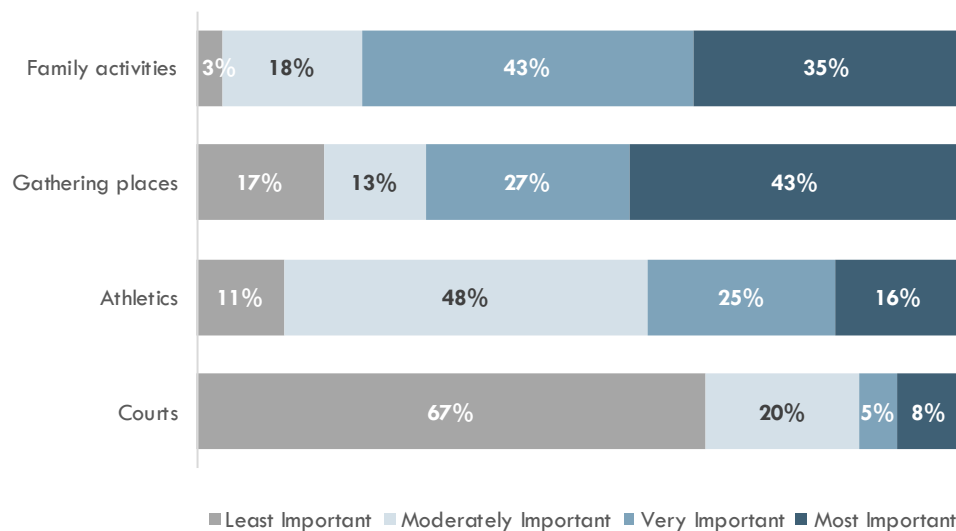
ATHLETICS



COURTS



12. Thinking about the images above, please rank the following activities in terms of importance, with 1 being the most important to include and 4 being the least important to include in Aubrey Davis Park.



13. Are there any other activities you want to see added or improved?

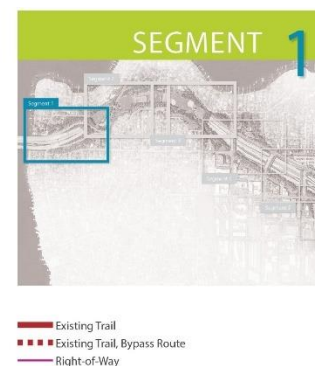
	Count	Percent
Better signage	2	7%
Bike park/pump track	1	4%
Bike repair station	1	4%
Do nothing/None	8	30%
Maintain athletic fields	1	4%
Maintain green space/Prioritize open space	4	15%
Off-leash area	3	11%
Playgrounds	1	4%
Prioritize pedestrians	1	4%
Questions about or unhappy with survey	3	11%
Restroom	3	11%
Seating	1	4%
Stages	1	4%
Water fountain	1	4%
Answered	27	
Skipped	86	

Note: Items listed in this summary were compiled from key words or phrases in the open-ended responses. Respondents could indicate multiple items in their comment, each is represented in the summary.

Sample open-ended responses

- *Direct cross Island bike traffic along specific trails and lessen that impact on other activities.*
- *Open, green space is the #1 priority.*
- *Plenty of benches for seniors to sit.*
- *Playgrounds... it's a particular need in NE quadrant of island - segment 8 of Aubrey Davis Park.*
- *Less is more. The park is fantastic the way it is.*
- *I would like the park to remain and be enhanced as a recreational area maintaining its natural park like setting. Less concrete, more grass.*
- *The fields need to be better maintained. They are already athletic fields so maintain them better. There is a growing demand for citizens on the island to have more access to field space.*
- *No but please do what you can to minimize more pavement. Make the courts we've got more multi-use so that we don't remove any more grass/trees from the existing park.*

PARK ON THE LID



14. What recreation programs or activities would you like to see in this part of the Park?

	Count	Percent
Gathering places	16	27%
Family activities	9	15%
Athletics	8	13%
Courts	4	7%
No major changes, maintain and enhance existing vegetation and infrastructure	33	55%
Anything else?	15	25%
Better signage	2	3%
Do nothing/None	8	13%
Maintain green space/Prioritize open space	4	7%
Off-leash area	1	2%
Questions about or unhappy with survey	2	3%
Answered	60	
Skipped	53	

Note: Items listed under “Anything else?” were compiled from key words or phrases in the open-ended responses. Respondents could indicate multiple items in their comment, each is represented in the summary.

- Most respondents didn’t want any major changes, but were looking for maintenance of existing vegetation and infrastructure

Sample open-ended responses

- Less is more. The park is fantastic the way it is. Get out of the business of providing fun.
- Leave it as is
- There are already plenty of activities - no need for more - just better maintenance of what we have
- Sprinklers so grass and trees don’t die
- IT IS A PARK. Aubrey Davis and the citizens of MI spent 20 years fighting for this PARK. Keep it a park. No new development or wider trails or impervious surfaces.
- Welcome sign showing map of the area and safety information for cyclists.



15. What recreation programs or activities would you like to see in this part of the Park?

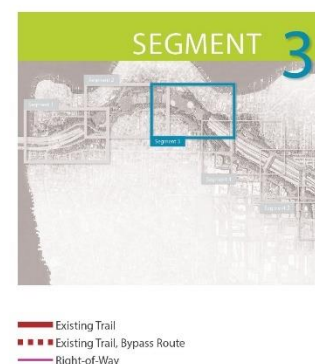
	Count	Percent
Gathering places	18	29%
Family activities	18	29%
Athletics	16	26%
Courts	10	16%
No major changes, maintain and enhance existing vegetation and infrastructure	24	39%
Anything else?	23	37%
Add gravel walking path	1	2%
Better utilize Opportunity Area B	1	2%
Bike park	1	2%
Do nothing/None	6	10%
Expand playground	1	2%
Improve athletic fields	2	3%
Maintain green space/Prioritize open space	6	10%
Off-leash area	1	2%
Prioritize pedestrians	1	2%
Unobtrusive art (e.g. murals)	2	3%
Wider path	1	2%
Answered	62	
Skipped	51	

Note: Items listed under “Anything else?” were compiled from key words or phrases in the open-ended responses. Respondents could indicate multiple items in their comment, each is represented in the summary.

- 39% of respondents would like to see no major changes but instead maintenance to existing vegetation and infrastructure.
- 29% of respondents wanted to see gathering places and family activities in this part of the park.

Sample open-ended responses

- *Add off lease area with separation from trail. Currently used that way now.*
- *This section of the trail is for families and walkers and should be kept that way to encourage its use.*
- *Aesthetics. Ugly industrial features make it unwelcoming and under-utilized.*
- *Less is more. The park is fantastic the way it is. The open fields are fantastic. Don't screw it up.*
- *Refurbish the athletic field. Paint the exhaust towers so that they better blend with the park like/natural setting. Have a local contest for the best community mural design for the wall by the basketball court*
- *The athletic fields are already there and there is increased demand for their use. Maintain them better than they are today and give preferential treatment to local uses. Kids and seniors first, then local island adults (users should provide records of participants).*
- *There are opportunities for unobtrusive art here - murals or the like.*



16. What recreation programs or activities would you like to see in this part of the Park?

	Count	Percent
Gathering places	16	26%
Family activities	17	28%
Athletics	19	31%
Courts	7	11%
No major changes, maintain and enhance existing vegetation and infrastructure	24	39%
Anything else?	19	31%
Better signage	1	2%
Bike park	1	2%
Do nothing/None	5	8%
Improve water fountain	1	2%
Keep paths	1	2%
Maintain athletic fields	2	3%
Maintain green space/Prioritize open space	4	7%
Off-leash area	1	2%
Playground	1	2%
Reduce bike/ped conflict, reroute bike traffic, exclude cyclists	3	5%
Restroom	1	2%
Answered	61	
Skipped	52	

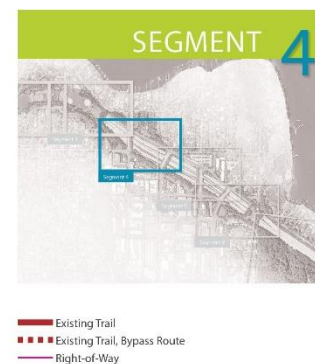
Note: Items listed under “Anything else?” were compiled from key words or phrases in the open-ended responses. Respondents could indicate multiple items in their comment, each is represented in the summary.

- 39% of respondents wanted to see no major changes in this part of the park.
- 31% wanted to see athletics, 28% wanted to see family activities, and 26% wanted to see gathering places.

Sample open-ended responses

- *Open green spaces are the priority!*
- *This area has gathering places, family playgrounds, baseball fields and tennis courts are a few hundred yards away. Nothing needs to be added.*
- *The open fields are fantastic. Don't screw it up.*
- *... It is very dangerous for small children on the trail at the bottom of the incline because the bicyclists whizz past at very high speeds and are unable to stop for meandering toddlers.*
- *The athletic fields are already there and there is increased demand for their use. Maintain them better than they are today and give preferential treatment to local uses. Kids and seniors first, then local island adults (users should provide records of participants).*

TOWN CENTER



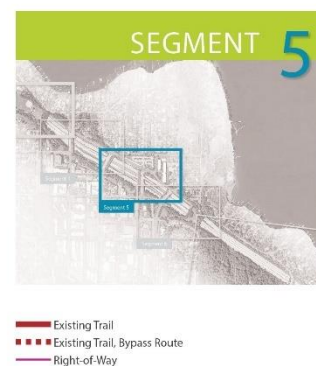
17. What recreation programs or activities would you like to see in this part of the Park?

	Count	Percent
Gathering places	15	26%
Family activities	15	26%
Athletics	5	9%
Courts	3	5%
No major changes, maintain and enhance existing vegetation and infrastructure	20	35%
Anything else?	26	46%
Add sculpture	2	4%
Better signage	1	2%
Bike park	1	2%
Bike share parking	1	2%
Do nothing/None	5	9%
Exclude bikes	1	2%
Improve trail/Keep trail	2	4%
Maintain green space/Prioritize open space	6	11%
Off-leash area	1	2%
Playground	1	2%
Seating	1	2%
Questions about or unhappy with survey	1	2%
Safer road crossings	1	2%
Separate bikes/ped	3	5%
Answered	57	
Skipped	56	

Note: Items listed under “Anything else?” were compiled from key words or phrases in the open-ended responses. Respondents could indicate multiple items in their comment, each is represented in the summary.

Sample open-ended responses

- *Continue focus on safety/separation of bike users from pedestrians along the area in front of the Park n Ride lot, especially given the new configurations for transit traffic once the LINK station opens.*
- *This is a tiny section - why are you even thinking of adding anything here? Right now it offers grass and trees. That's all that's needed.*
- *The grass often browns out and dies there. Needs to be watered better*
- *Keep it low impact - there is a lot of traffic and noise so just trees and other natural improvements to reduce both*
- *Leave as is. Eliminate bicycles for individuals over the age of 12. This is a walking path next to two senior living facilities.*
- *Perhaps add a sculpture.*
- *Do not remove the trail through this area.*



18. What recreation programs or activities would you like to see in this part of the Park?

	Count	Percent
Gathering places	9	16%
Family activities	3	5%
Athletics	3	5%
Courts	0	0%
No major changes, maintain and enhance existing vegetation and infrastructure	24	43%
Anything else?	31	55%
Better signage	1	2%
Better trail connections	1	2%
Bike park	1	2%
Bike share parking	2	4%
Create a direct bike path with better flow	3	5%
Do nothing/None	4	7%
Improve trail	1	2%
Maintain green space/Prioritize open space	7	13%
More parking	1	2%
Prioritize pedestrians	1	2%
Questions about or unhappy with survey	3	5%
Retail/café	1	2%
Seating	2	4%
Separate bikes/ped	4	7%
Traffic calming	1	2%
Water fountain	1	2%
Answered	56	
Skipped	57	

Note: Items listed under “Anything else?” were compiled from key words or phrases in the open-ended responses. Respondents could indicate multiple items in their comment, each is represented in the summary.

Sample open-ended responses

- *The key in this section is to put pedestrians first and to ensure cyclists (not families) know how to cross the island and avoid the trail.*
- *Better trail connection across driveways*
- *We don't want to see I-90, hear it, or smell it. Enhance the shrubs and trees. New planting, irrigation. Keep the woodsy feel on the bridges.*
- *Bicycle lockers for last mile commuters or those wanting to check out the area on foot.*
- *Leave as is... no reason to spend more money.*
- *Create a direct path for bikes, multimodal through this area. Diverting behind the Park N Ride will be problematic. Remove the yield sign and install stop sign for cars exiting I-90 and turning right. Very dangerous.*
- *If you want to divert walkers and bikers through here, please do more to mitigate traffic noise. Also, as a cyclist, I wouldn't go that way due to the sharp turns - I'm just going to head in front of the P&R. And that's a residential area w/ houses and apartments. I suspect the residents will want some protection of their cars & property from the traffic.*



— Existing Trail
- - - Existing Trail, Bypass Route
— Right-of-Way

19. What recreation programs or activities would you like to see in this part of the Park?

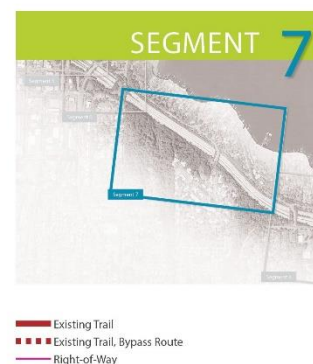
	Count	Percent
Gathering places	17	30%
Family activities	13	23%
Athletics	4	7%
Courts	1	2%
No major changes, maintain and enhance existing vegetation and infrastructure	21	38%
Anything else?	24	43%
Better access	1	2%
Better signage	2	4%
Bike park	1	2%
Do nothing/None	4	7%
Maintain green space/Prioritize open space	8	14%
Off-leash area	1	2%
Picnic tables	1	2%
Questions about or unhappy with survey	2	4%
Restroom	1	2%
Safety: improved lighting	2	4%
Safety: improved road crossings and slipways	2	4%
Shelter with seating	1	2%
Water fountain	1	2%
Answered	56	
Skipped	57	

Note: Items listed under “Anything else?” were compiled from key words or phrases in the open-ended responses. Respondents could indicate multiple items in their comment, each is represented in the summary.

Sample open-ended responses

- *The slipway and crosswalks at the I-90 exit need to be addressed. They are very dangerous and place users at risk of severe injury, in addition to increasing the likelihood of all crash types.*
- *Keep the open green space and trees!*
- *A good place for another bathroom/fountain*
- *Need better lighting on this section for night time bicycle commuters*
- *Somewhere with a roof and place to sit down. Grab a snack, get out of rain or sun. Chill for awhile.*
- *I don't see a need to add anything here. It is lovely open space.*
- *Keep it green. Keep it natural. Make it more like Pioneer Park*
- *Replace the yield sign with a stop sign for cars exiting I-90 and turning right. Dangerous situation even with expanded view.*

EAST SEGMENT



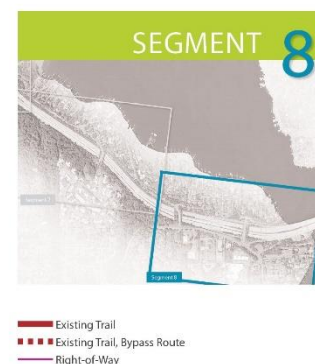
20. What recreation programs or activities would you like to see in this part of the Park?

	Count	Percent
Gathering places	5	9%
Family activities	5	9%
Athletics	4	7%
Courts	1	2%
No major changes, maintain and enhance existing vegetation and infrastructure	26	46%
Anything else?	30	53%
Better signage	2	4%
Bike park	1	2%
Do nothing/None	5	9%
Improve/repave/widen trail	10	18%
Maintain green space/Prioritize open space	2	4%
No parking	1	2%
Prioritize pedestrians	1	2%
Safety: improved lighting	4	7%
Safety: improved road crossings	1	2%
Questions about or unhappy with survey	1	2%
Seating	1	2%
Separate bikes/ped	2	4%
Traffic calming	1	2%
Answered	57	
Skipped	56	

Note: Items listed under “Anything else?” were compiled from key words or phrases in the open-ended responses. Respondents could indicate multiple items in their comment, each is represented in the summary.

Sample open-ended responses

- *The path needs to be widened and intersection visibility improved.*
- *Trail widening and improvements. This is the most critical section of the trail. Install or improve lighting in certain sections where trail intersects with roads*
- *"Flattening" of trail that is currently uneven due to tree roots under pavement; clearer delineation between fast cycle-thru traffic and pedestrian usage*
- *Trail is way too narrow in here for all of the multiple users.*
- *It is important in this area to show cyclists how to reach the street and protect pedestrians so they can walk safely without cyclists to the Park and Ride.*
- *Crossing lights at major roads. The kind that can be activated by the walker or bicyclist.*
- *The trail should be more dedicated to pedestrians as most cyclists use North Mercer Way.*
- *Signage with name of park. Distance markers in miles.*
- *This is a dark, narrow, dangerous area used by bikes, scooters, and pedestrians who used for recreation and commuting. The trail needs to be widened and lights installed.*



21. What recreation programs or activities would you like to see in this part of the Park?

	Count	Percent
Gathering places	15	27%
Family activities	14	25%
Athletics	8	14%
Courts	3	5%
No major changes, maintain and enhance existing vegetation and infrastructure	19	34%
Anything else?	23	41%
Better signage	2	4%
Bike park	1	2%
Boating support	1	2%
Do nothing/None	5	9%
Improve access connection	5	9%
Improve multimodal capacity/widen trail	4	7%
Maintain green space/Prioritize open space	4	7%
Don't build multifamily	1	2%
Playground	1	2%
Separate bikes/ped	1	2%
Questions about or unhappy with survey	1	2%
Answered	56	
Skipped	57	
























Note: Items listed under “Anything else?” were compiled from key words or phrases in the open-ended responses. Respondents could indicate multiple items in their comment, each is represented in the summary.

Sample open-ended responses

- *More focus needs to be placed on improving the connection from the park South of the 90 on ramp and the trail. The slipway from East Mercer to the on ramp is very dangerous and of limited utility to vehicles in terms of time savings.*
- *Improve access to and surface on East channel bridge, especially for bikes. The current trail is bumpy and access from MI is narrow.*
- *Keep Sculpture park. No density bldgs that would bring crowds.*
- *This is an entrance area for commuting and club cyclists and what is most important here is to address their needs so they know how to cross the island safely without having to risk mixing with pedestrians.*
- *playground; connector trail to Mercerwood neighborhood via city hall property.*
- *A wayfaring sign if this is a local access point. Get from trail to off trail facilities.*
- *This is primarily an open space and should be maintained as such*
- *Keep it green. Keep it natural - make it more like Pioneer Park unless an additional athletic field was added*
- *Leave as is - no reason to spend more money.*
- *Improve capacity to move multimodal transportation through this area.*

Demographics







22. What neighborhood do you live in?

	Count	Percent	
South End	7	12%	
Mercerwood	5	8%	
West Mercer	4	7%	
East Seattle	3	5%	
Ellis Pond	3	5%	
North End	3	5%	
Parkwood	3	5%	
Town Center	3	5%	
East Mercer	2	3%	
First Hill	2	3%	
Island Point	2	3%	
The Lakes	2	3%	
Groveland	1	2%	
Mercer First	1	2%	
Mercer Island Estates	1	2%	
Mercerdale	1	2%	
Other (please specify)			
Seattle	10	17%	
Mercer Island	4	7%	
Redmond	1	2%	
No answer	1	2%	
Mercer Island Total	47	80%	
Seattle Total	10	17%	
Other Total	2	3%	
Answered		59	
Skipped		54	

Note: Items listed under “other” were compiled from key words or phrases in the open-ended responses. Any neighborhood listed has been coded to the respective city.

- 80% of respondents are from Mercer Island, while 17% are from different neighborhoods in Seattle including the U District, Capitol Hill, and Beacon Hill.
- Of the respondents on Mercer Island, the most responses came from the South End (12%), followed by Mercerwood (8%), and West Mercer (7%)

23. What is your age?

	Count	Percent	
Under 18	0	0%	
18-24	1	2%	
25-34	9	14%	
35-44	12	19%	
45-54	12	19%	
55-64	10	16%	
65+	19	30%	
Answered		63	
Skipped		50	

Aubrey Davis Park Master Plan

Open House #1 | MEETING NOTES

February 28, 2019

Plan Area	Notes
VISION - Goals	<p>Provide for a variety of uses and activities (10 dots)</p> <ul style="list-style-type: none"> ● I enjoy seeing all the activities happening at this park all year long ● Given the number and variety of uses the whole park should be an "on-leash" area ● Inclusive of all users ● Expand trail & make it safer <p>Retain the natural park character (24 dots)</p> <ul style="list-style-type: none"> ● Yes this is a #1 priority (x2) ● Green open space is a treasure. Retain as much as possible ● Trees are too tall! Cut/trim so as not to block views of Seattle ● Cut the tall overgrown trees by the playground <p>Allow for a variety of trail experiences (10 dots)</p> <ul style="list-style-type: none"> ● Move bikes to the road ● Maybe consider dogs kept ON leashes on the trails ● Separate bikes from walkers, runners, strollers, toddlers ● Separate bikes and other uses with lane markers (+1) ● Moving bikes to the road serves too few riders; the trail is great ● Own bike lanes; walkers afraid to get hit ● Separate bikes from off-leash dogs <p>Enhance arts and cultural heritage (7 dots)</p> <ul style="list-style-type: none"> ● The sculpture park is also a gem; consider expanding areas where art is placed ● I love the happy surprises of art and sculpture in our parks <p>What is missing in the vision? What would you change?</p> <ul style="list-style-type: none"> ● After soccer/lacrosse/volleyball activities there should be park maintenance to immediately repair divets – torn-up areas ● Green spaces provided by ADP is very important to healthy lifestyle options of residents – do not develop, leave it alone ● I support art in the parks and cultural activities

	<ul style="list-style-type: none"> ● Balance regional need with local priorities; don't allow big government to stamp out local control ● Aubrey Davis' vision is missing from here – to isolate the freeway from Mercer Island ● Honor man, vision, accomplishments ● Vision statement to have reference to original intent – to not see, hear, or smell [I-90] <p>Other (sticky note comments)</p> <ul style="list-style-type: none"> ● Vegetation replacement priorities: drought tolerant, native, non-invasive! Pollution tolerant, improve soil ● The park is loved but needs TLC ● “We built it and off islanders use it” ● Follow through with promises made – use of \$\$ ● Keep I-90 invisible
VISION – What makes a great place?	<ul style="list-style-type: none"> ● Love the ideas in the images with festival lighting, a natural wood balance beam, and red ribbon park
PROCESS TO DATE	<p>Under “Sports and Boating”</p> <ul style="list-style-type: none"> ● No more parking is needed; all spaces are only taken for times like Blue Angels
KEYMAP	<ul style="list-style-type: none"> ● Crosswalk flashers when people are using at the west end near I-90 entrance ● Permanent restroom at west end would be great ● Remove the painted mural at the I-90 exit at West Mercer, Awful ● I love the new mural! Restful after coming from the city ● Off-leash in lid park is great – keep it that way! Fence off off-leash to keep separate from trail ● Avoid herbicides, compost trimmings, light pathways, use solar panels, and include multi-lingual signage ● Add walking trail to “wooded” section (not a bike path – a “rustic walking path”) ● Walking along natural paths ● Keep I-90 bike trail open for bike commuters ● Keep plant height less than 5' ● Be sustainable ● Updates on process on website, etc. as a YouTube video ● Signs in parks/landscape in multiple languages ● Do a story map for Aubrey Davis Park (like they did for sculpture gallery) ● Survey too many questions

ACTIVITIES	<p>Gathering (1 dot)</p> <ul style="list-style-type: none"> ● (One dot on mound photo) <p>Family Activities (2 dots)</p> <ul style="list-style-type: none"> ● (One dot on artful sandbox photo) ● (One dot on playground photo) <p>Courts (1 dot)</p> <ul style="list-style-type: none"> ● (One dot on court photo that says "Tennis Courts") ● Tennis courts have many cracks that <u>need</u> repair ● Tennis court nets are broken ● Court is cracked – fix cracks <p>Other/What else?</p> <ul style="list-style-type: none"> ● Off-leash dogs need to be in fenced area please ● I like things just as they are – no wider paths
PROGRAMMING Segment 1	<ul style="list-style-type: none"> ● Passive recreation such as fishing at the water access point
PROGRAMMING Segment 2	<p>Area C</p> <ul style="list-style-type: none"> ● (Sports dot on field) ● (Gathering area dot on field) ● (Family activities dot on field) ● Trees way overgrown. Can't see beautiful views that the island is so lucky to have ● Trees are overgrown onto trail on southeast side of park (x2) ● I lead group bicycle rides and I'd love to start from the Segment 2 parking lot but the time limit is 2 hours; typical bike ride is 4 hours <p>Trail</p> <ul style="list-style-type: none"> ● Trail 6' wide only through park ● No change in width of path – wider and faster bikes are more dangerous to other users ● Bikers zoom so fast they almost hit pedestrians, especially the elderly. Need separate bike lanes ● Trail 10' wide ● Need fence between dog areas and trail; poop bag dispenser and garbage can and signage at voice control

	<p>Area B</p> <ul style="list-style-type: none"> ● (Sports dot in Area B) ● (Gathering dot south of playground in Area B) ● Keep Area B as a family/open area <p>Tennis Court Area</p> <ul style="list-style-type: none"> ● (Sports dot in tennis court area) ● (Family activities dot in tennis court area) (x2) ● Area by the tennis courts has one of the best views in the park – how can we make this available to more people ● Need sign-up sheet for courts – too many people waiting/fighting for court time <p>Other</p> <ul style="list-style-type: none"> ● Survey didn't consider "no change" option as if nothing is there now ● After activities on fields – immediate maintenance repairs to divets/torn up areas, etc. ● No field lights and no astroturf please, thanks ● All lighting should point down and not shine into neighborhoods or the eyes of migrating birds ● Stacks could be amazing pieces of artwork ● Basketball court area could be a stunning piece of art ● Keep park as is and no reason for any change and can't afford it ● In WSDOT maintenance area: more sport courts in addition tennis, pickleball, table tennis, etc.
PROGRAMMING Segment 3	<p>Other</p> <ul style="list-style-type: none"> ● Ivy is killing the trees; please remove it ● No more rubber matting and no more plastic [in playground]; it should be more natural ● Major trail to town center going east on south side of Area A ● Transient drug use in forested area on the west side of I-90 and N Mercer Way intersection ● First hill does not have sidewalks for the walkers; provide walkers with a trail loop around the perimeter of the Aubrey Davis lid park ● Bikes should use street not park – park is for kids and residents ● Bikes belong on streets NOT in park ● Cars come too fast going north/south on 72nd ● Need crosswalk connecting top of ramp across 72nd

	<ul style="list-style-type: none"> ● Vehicular conflict zone at 72nd and 24th – possible to route cars onto 71st: low visibility due to grades; pedestrian crosswalk not visible at top of hill <p>Ramp to 72nd Ave SE</p> <ul style="list-style-type: none"> ● Opportunity for artwork along ramp wall ● Ramp is first opportunity for parks to get off street – keep it <p>Restroom Conflict Zone</p> <ul style="list-style-type: none"> ● (Gathering area dot on field) ● Loop around field used as trike trail – conflict with faster bikes around restroom ● Conflicts with bicyclists need to watch out for dogs here. Blind spot – they are going too fast ● Re-route bikes behind restroom
PROGRAMMING Segment 4	<p>Opportunity Area F</p> <ul style="list-style-type: none"> ● (Gathering area dot here) ● Less grass; sustainable groundcover and more edible plants <p>76th Ave Overpass</p> <ul style="list-style-type: none"> ● Irrigation leaking/problems in 76th Ave overpass ● Realign trail here for safety <p>Other</p> <ul style="list-style-type: none"> ● (Gathering area dot at cul-de-sac on Sunset Highway) ● Foot, bike trail to 77th Ave SE (From bike path along N Mercer Connector) ● Madrona (cropped) creating sight distance issue at intersection of N Mercer Way and 76th ● Boundary check just north of this tree ● Trees that have been cut because of disease do not have to be replaced. Use money for more trees needing replacement elsewhere ● Maintain trees – all cedars dying along corridor ● Drug use and dumping at NE corner of 77th Ave SE and N Mercer Way ● Terrace trail along contour and open understory (reduce homeless)
PROGRAMMING Segment 5	<p>Other</p> <ul style="list-style-type: none"> ● Love to see more public art ● Bikes in bike only lane ● Keep bikes on road (for bikes going east on SE 24th street) ● Yes, bikes on road

Sound Transit Parking Area

- Need place for car share and drivers to drop-off/pick up riders
- Different colors between peds and cyclists would be better – can't see symbols from a far distance
- Hate green, walkers go on full width
- Need a bus rider drop-off/pick up area
- Bicycle crossing – in blind spot of left turn vehicle – hazard
- Please add yield sign for cyclists travelling east on N Mercer Way to yield to cars turning left (North) at 81st SE

New Sound Transit Station

- West end: Too much transparency and doesn't meet original MOA & intent
- East end: Keep lots of green and add more trees at entry
- East end: Minimal change – keep just as green and replace landscape

Sculpture Garden

- Mitigate the freeway noise and sight of new 77th Ave light rail station by re-planting evergreen trees in the open space where trees have died behind the bench
- Incorporate seating artistically along path
- I love artwork in the community

PROGRAMMING Segment 6

Opportunity Area G

- Better walking space between SE 27th Street and entrance to Opportunity Area G
- Entrance to Luther Burbank Park from city
- Entrance to Luther Burbank Park from town center
- (Gathering area dot in NE corner)
- Luther Burbank outreach center

Opportunity Area H

- "The Lookout" – overhang area to the north
- (Gathering area dot in north section)
- Name and sign as "Luther Lid"
- Keep open/natural area

Other

- Keep the bikes out of the park
- No bikes in park
- Keep bikes on the I-90 bike trail

	<ul style="list-style-type: none"> ● No improvements and activities wanted in this part of the park
PROGRAMMING Segment 7	<p>Other</p> <ul style="list-style-type: none"> ● Connect Shorewood and Upper Luther Burbank Park via trail on south side of I-90 ● We like the park as it is! No changes! Use \$ for maintenance not new construction ● Complete east portion of Upper Luther trail up into Shorewood – now only ending in the ravine ● Existing trails to ravine in cul-de-sac in Shorewood neighborhood ● No improvements or activities wanted in this part of the park ● Put some water in the planters along the Shorewood drive overpass <p>Bikes</p> <ul style="list-style-type: none"> ● Bikes here along N Mercer Way ● Put bikes on road (widen) and 6' trail only ● The city spent a lot of money making roads safe for bikers; keep them on roads
PROGRAMMING Segment 8	<p>Boat launch</p> <ul style="list-style-type: none"> ● Parcel by the boat launch should be acquired ● Restroom in area just to the right of the boat launch <p>Opportunity Area I</p> <ul style="list-style-type: none"> ● (Gathering area dot here) ● (Family activities dot here) ● There are no public playgrounds in this quadrant of the island – would be great to see a small playground for kids (x2) ● Access area for gatherings, bike rides/events (gather and park here) <p>Opportunity Area J</p> <ul style="list-style-type: none"> ● (Family activities dot here) (x2) ● Protect bike/pedestrian access to park along E Mercer Way <p>Other</p> <ul style="list-style-type: none"> ● (Family Activities dot in forested area behind Bright Horizons) ● Connector Trail to access park from Mercer Wood neighborhoods ● Pedestrian scale lighting to improve commute and improve safety ● Fix root bumps & cracks in asphalt of bike trail

TRAILS Lidded Park	<ul style="list-style-type: none"> ● Add restroom on West side ● Trees along west side of I-90 trail need to be cut – are way overgrown ● Bikers speed down this hill [west side of I-90 trail] ● Loop walking trail along north side of lidded park ● Make it lighted (x2) ● Bikers speed on trail down the hill east of W Mercer Way – not safe for walkers ● Entrance to park needs barricade between 66th Ave parking lot and trail ● This sidewalk is bad – easy to fall down ● Bikes speed around corner approaching 72nd overpass ● Improve this area only at trail and overpass intersection ● Tennis courts: fix cracks, sign-up sheet (always people) ● Fix courts ● Sidewalk access to park on the north side of park at 72nd ● No sidewalks in neighborhoods south of park – need a place to walk! ● Love having sculpture in this park ● Bikes & off-leash dogs – conflicts ● Fencing or designated off-leash area ● Keep trail width as-is (x3) ● Safer roads for hwy bike users – trail for everyone else on other side
TRAILS Town Center	<ul style="list-style-type: none"> ● Move cyclists to road northbound (right lane – shared with bus) ● How will bikes get from bike trail to bike parking on 77th at light rail? Consider ped/bike/bridge to facilitate safe crossing ● Needs trees at sculpture garden ● Accommodate bikes through I/S of 81st and the PiR. Explore bike signals. High conflict areas that need fix on N Mercer Way ● Right hook issues at park & ride entry; signs, bike signal ● Need WF signs; bikes at park and ride ● Very tight spot at Island Crest Way apartments – not much room ● Sign alternate routes for bikes to avoid pinch point ● Tully's site - How will we get # cars in and out of here? ● Intersection with all extra cars at Sunset Hwy and 77th ● Lots of congestion on city streets on SE 27th
TRAILS East Segment	<ul style="list-style-type: none"> ● The wider you make it the more it'll attract users. ● Concerns with congestion at intersection from current land uses ● Cross Section D – No shoulder, but separate paved and gravel path where possible ● Safety warning (balls) ● Using road more because of bumps (roots) in trail

	<ul style="list-style-type: none"> ● Accesses to trail are dangerous ● Move high-speed cyclists to North Mercer Way ● Faster routes to trail are dangerous
TRAIL EXPERIENCE	<ul style="list-style-type: none"> ● Trail signage – where am I supposed to be? Bike signal at Park & Ride ● Wayfinding ● Map of the park – mileage marker ● Save the trees – mature ones ● Save the trees ● Preserve the natural feel of trail ● City to provide specific location of conflicts and accident data ● Need to get independent counts for bicyclists on existing trail <p>Trail Design</p> <ul style="list-style-type: none"> ● 14' trail probably a good idea - more leisurely, comfortable, safer. ● Keep to the 10' provide a second separated pedestrian trail ● Narrow trails promote slower speeds & safety! ● Delineated trail; separate trail for cyclists and peds ● Please do not widen trail! ● On 14' bike path, be sure to have a center stripe ● Please don't allow paths to be widened ● Very opposed to widening any portions to 14' (x7) ● Separate bike lanes! Cyclists move way too fast. All weave through pedestrians (esp. elderly). Very unsafe. ● Bikes belong on the roads not on park trails- dangerous for everyone else! ● Lighting on trails ● Separate bikes & peds, more "no dog" signs, voice control is a problem ● Keep to the 10'; provide a second separated ped trail ● 2 paved trails to separate wheels from peds (See Myrtle Edwards Park) – by C. Ridolfi ● Separate paved & gravel trails where possible; through cyclists should be on the road ● Dogs on-leash ● Only widen portions to address conflicts <p>Trail Location</p> <ul style="list-style-type: none"> ● Trail to Upper Luther Burbank needed ● Keep the bikes out of the park ● Bikes use streets not park paths

	<ul style="list-style-type: none"> ● The paved I-90 bike trail is important for bike traffic and off-island including bike commuters and recreational riders. <p>Trail Users</p> <ul style="list-style-type: none"> ● Safety for pedestrians getting to & on the trail ● No electric bikes on pathways ● Widen trail, slow down cyclists! ● The 1% experienced/confident bikers do not share the trail. Too fast for conditions!
TRAIL EXPERIENCE	<p>Wheels</p> <ul style="list-style-type: none"> ● 3 dots – faster through cyclist ● 5 dots – fitness cyclist/group riders ● 0 dots – e-bike cyclist ● 6 dots – casual through cyclist ● 4 dots – casual cyclist ● 2 dots – first/last milers ● 3 dots – family cyclist ● 1 dot – alternative wheels ● 0 dots – assisted mobility <p>Feet (4 dots in general)</p> <ul style="list-style-type: none"> ● 8 dots – jogger/runner ● 4 dots – fitness pedestrian ● 9 dots – casual pedestrian ● 1 dot – groups walking ● 2 dots – walking with strollers ● 3 dots – elderly and senior walkers ● 1 dot – visually impaired pedestrians <p>Other:</p> <ul style="list-style-type: none"> ● Please consider bicycle commuters (should be added as a category) ● This isn't Mercer Island ● How about the casual pedestrian? ● Scooter share – lime scooters ● Note no bikes belong on the roads! ● Elderly – this is a good one; putting bicyclists on the same path as the elderly; on your left ● Who is supposed to be on the left (x2)

Mercer Island Aubrey Davis Park

DRAFT July 5, 2019 | Survey Analysis

Survey Overview

The second Mercer Island Aubrey Davis Park Survey was designed to complement the second open house, and similar to the open house, solicit feedback on the preliminary design options presented for Aubrey Davis Park. The survey was open from April 23rd, 2019 to June 7th, 2019. It is important to note that this is not a statistically valid survey.

The survey was presented as a graphic narrative, using the ESRI StoryMap platform with integrated design concepts and survey questions throughout the narrative. It was intended to be a more immersive survey, closer to the experience of attending an open house versus taking an online survey. The general structure showed the respondent a set of design concepts for a particular area of the park, then asked for feedback on those specific design concepts for that area. It was designed to take 15-20 minutes to complete, although that time varied due to the high amount of open-ended questions.

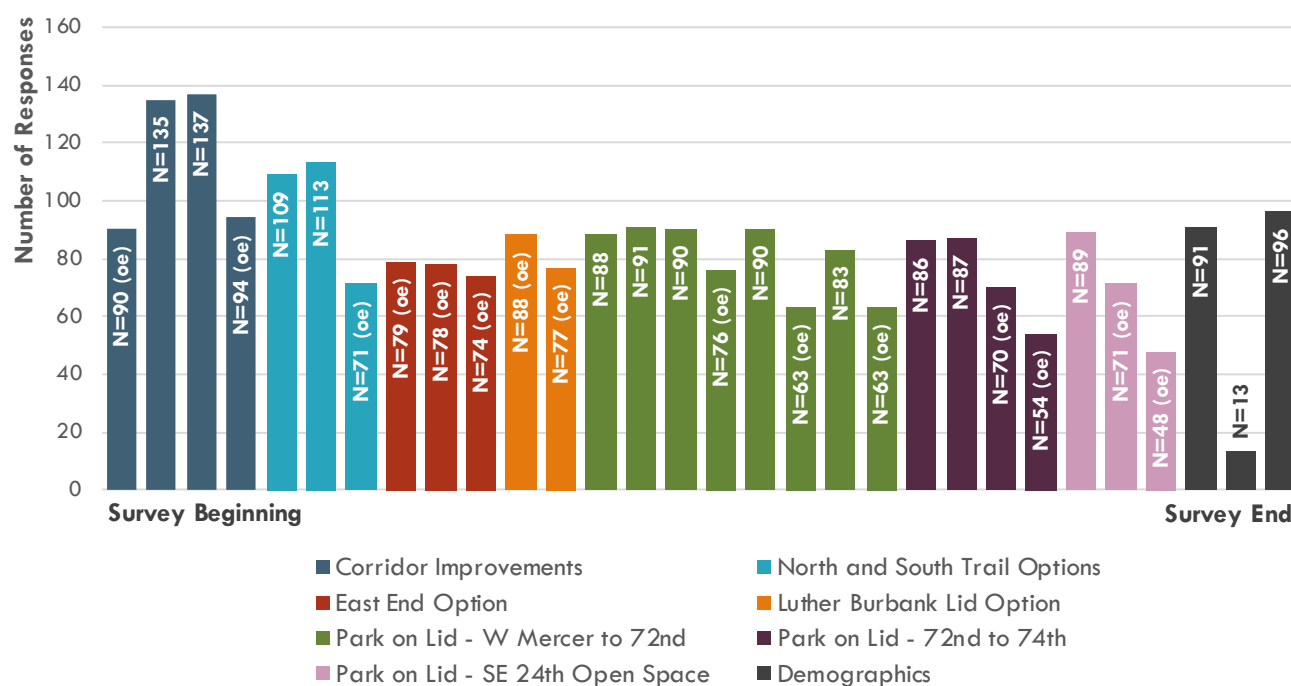
There were eight sections of survey:

1. Corridor Improvements
2. North and South Trail Options
3. East End Option
4. Luther Burbank Lid Option
5. Park on the Lid – West Mercer Way to 72nd Avenue SE
6. Park on the Lid – 72nd Avenue SE to 74th Avenue SE
7. Park on the Lid – SE 24th Street Open Space

While the survey was implemented to avoid people taking the survey multiple times based on the web settings used, it is possible that an internet-savvy user could have taken the survey multiple times in order to emphasize their opinion on the planning process.

The completion of the survey dropped off as users continued through the sections, as shown below in Exhibit 1.

Exhibit 1. Responses per Question



Note: OE in parenthesis (oe) signifies open-ended response question.

The Corridor Improvements and North and South Trail Options sections had the highest response rate, with the middle and end sections having a lower response rate overall. Additionally, the open-ended questions had far lower participation than questions in which the user gave a number rating or selected from a multiple-choice list.

Overall, the most common theme within the responses was to do nothing, and that outside of some safety improvements or better signage, the park functions well as it currently exists. Another theme was limiting the amount of new pavement and hardscaping.

The contingent of respondents speaking against any investment into the design options shown, and master planning process in general, was quite vocal and descriptive in the ways they felt this process was not a good use of money. Conversely, other users supported the long-term makeover of the park, and favorably viewed the design options shown.

The overall opinions expressed in the survey are highly varied, and in instances where specific design options were provided, favorability was often split such that no clear option was preferred, except in the instances where 'do nothing' or 'neither' was an option.

Corridor Improvements

1. Do you have any comments about the proposed trail improvement to the EAST CORRIDOR portion of the park only?






	#	%
Like the view provided by the balcony	1	1%
Address rough trail surfaces	1	1%
Against due to concerns about costs	7	8%
Against due to lost natural area	8	9%
Against use by bicycles	4	5%
Against widening for bicycles	1	1%
Bicycles should be on the street	4	5%
Concern about gravel for ADA accessibility	3	3%
Desire better pedestrian access to trails	1	1%
Do nothing	14	16%
General support	3	3%
Make the trail narrower	1	1%
More lighting	1	1%
None	11	13%
Not clear on proposal	2	2%
Preserve natural features	1	1%
Safety issues at crossings	1	1%
Signage and speed enforcement needed on trail	5	6%
Support trail improvements and shared use of trail	10	11%
Use native plants	1	1%
Want more differentiation between sections for bicycles and pedestrian	6	7%
Want signage	1	1%
TOTAL:	87	
Skipped:	54	

Note: Items listed in this summary were compiled from key word or phrases in the open-ended questions.

Sample open-ended responses

- *Thank you for doing this! I particularly like the idea of a "balcony" on the west edge of the tennis courts to be able to sit and view the Seattle skyline and the Olympics.*
- *No need to change as it is. My family uses it daily and it works great. You want to spend money the city does not have on parks that are working great as they are.*
- *The restoration after the sewer project should be to the existing configuration. Do not pander to cyclists and make unnecessary changes to roads and trails, or paint ridiculous green paths and other wastes of money. I have cycled all my life - and I moved to Mercer Island to escape this kind of stupidity. Do not Seattlize MI.*
- *Anything that separates cyclists and pedestrians would be a good thing.*
- *Looks great - It's important to have a wide trail here.*
- *Prioritize pedestrian mobility and safety over bicyclists.*
- *I think these two options are opposed to what the citizens need or want. With the budget cuts that potentially will effect staffing at schools, the timing of this is not appropriate.*
- *I'm struggling to understand exactly what is being proposed. The concepts are vague. What would be changed, where?*
- *Can't you just leave well enough alone? Most of your "improvements" are not that helpful. The only thing that would really help is setting a speed limit for bicycles. They go way too fast, and treat any pedestrians, strollers, dogs on leash, or any thing on the pats as though they are moving slalom gates. There are some exceptional bikers who are courteous, but they are exceptions.*

2. On a scale of 1-5 (1- not likely to 5- very likely), how likely are you to support the proposed trail improvement to the PARK ON THE LID portion of the park only?






	#	%	
1	50	37%	
2	6	4%	
3	14	10%	
4	22	16%	
5	43	32%	

TOTAL: 135

Skipped: 6

- The answers are skewed towards either extreme, with 41% of respondents saying they are unlikely or somewhat unlikely to support the proposed improvements, and 44% they are somewhat likely or likely to support the proposed improvements.

3. On a scale of 1-5 (1- not likely to 5- very likely), how likely are you to support potential shoulder, signage, and wayfinding improvements to NORTH AND WEST MERCER WAY portion of the park only?

	#	%	
1	47	34%	
2	6	4%	
3	17	12%	
4	22	16%	
5	45	33%	

TOTAL: 137

Skipped: 4

- The two extremes were represented nearly equally, with 34% of respondents saying they are unlikely to support improvements to North and West Mercer Way portions of the park, while 33% of respondents say they are likely to support those improvements.

4. What would you change about the concepts shown in the Corridor Improvements section above?

	#	%
Add an off-leash dog park	1	1%
Add improved crosswalk	1	1%
Add speed bumps	2	2%
Address rough trail surfaces	3	3%
Against due to concerns about costs	9	10%
Against due to lost natural area	5	5%
Against use by bicycles	8	9%
Against widening	1	1%
Against widening for bicycles	2	2%
Block pedestrian trail from bicycle access	1	1%
Do not add an on-leash dog park	1	1%
Do nothing	17	18%
Don't use bright paint	1	1%
General support	3	3%
Include adult fitness equipment	1	1%
Include speed limits and limited to non-motorized bicycles	1	1%
More clear signage	5	5%
None	4	4%
Not clear on proposal	4	4%
Prioritize natural areas	5	5%
Prioritize pedestrian use	3	3%
Prioritize safety	1	1%
Pursue private revenue sources to minimize cost to residents	1	1%
Remove gravel	2	2%
Safety reminders for bicycles	1	1%
Separation for pedestrian and bicycle use is unnecessary	1	1%
Speed limit and leash law enforcement	1	1%
Support widening but concerned about lost natural area	1	1%
Want more differentiation between sections for bicycles and pedestrian	8	9%
TOTAL:	94	
Skipped:	47	

Note: Items listed in this summary were compiled from key word or phrases in the open-ended questions.






Sample open-ended responses

- *I like it.*
- *The cost. If the city has budget constraints that cause it to be unable to fund counselors in our schools, etc... it should not spend \$\$ on the parks unless they are made to be revenue-generating improvements.*
- *Walking dogs is important and the fast paced bikers are a conflict. I would like to see a specified bike path when coming down the hills so that if we are walking we don't have to watch behind us.*
- *Leave as is with the exception of adding signage and/or speed bumps where the bikes go too fast close to the play fields*
- *Glad to see this finally happening!*

N and S Trail Options

In this section, the preference seems to differ from the opinions heard at the in-person open house. At the open house, participants seemed to favor the south trail alignment, however respondents of the online survey below were more strongly against the south trail alignment versus the north trail alignment.

5. On a scale of 1-5, where 1 is no way and 5 is absolutely, should the city pursue further feasibility of the NORTH TRAIL OPTION for a new regional trail bypass route?






	#	%	
1	32	29%	
2	9	8%	
3	16	15%	
4	18	17%	
5	34	31%	

TOTAL: 109

Skipped: 6

- Nearly half of respondents (48%) said they think the city should or absolutely should pursue further feasibility of the North Trail Option, while 29% person were strong against this option.
- 15% of respondents were neutral.

6. On a scale of 1-5, where 1 is no way and 5 is absolutely, should the city pursue further feasibility of the SOUTH TRAIL OPTION for a new regional trail bypass route?

	#	%	
1	46	41%	
2	9	8%	
3	21	19%	
4	11	10%	
5	26	23%	

TOTAL: 113

Skipped: 2

- Respondents were overall against this proposal, with 41% saying no way, the city should pursue further feasibility of the South Trail Option.
- 19% of respondents were neutral, and just one third of respondents were feeling favorable towards the city pursuing further feasibility of this option.

7. What would you change about the concepts shown in the North and South Trail section above?

	#	%
Add off-leash dog park	1	1%
Add speed bumps	3	4%
Against bright paint	1	1%
Against due to concerns about costs	3	4%
Against use by bicycles	7	10%
Bicycles should use the North Trail option, not the South Trail option	1	1%
Bicycles will continue to use N Mercer Way	1	1%
Choose plants that don't damage the trail	1	1%
Concern about cost	5	7%
Do nothing	11	16%
Do nothing, but increase signage	1	1%
Done	1	1%
General support	4	6%
Improvements for bicycles on N Mercer Way	1	1%
More analysis needed	1	1%
Neither trail	1	1%
No off-leash dog park	1	1%
None	2	3%
North Trail better keeps bicycles away from pedestrians	2	3%
North Trail path does not make sense	1	1%
Prioritize natural areas	9	13%
Separate trails for bicycles and pedestrians are not needed	1	1%
South Trail is most accessible to Seattle neighborhoods and should remain multipurp	2	3%
Support splitting trails for bicycle and pedestrian use	3	4%
Support widening for multipurpose use	3	4%
Trail should parallel N Mercer	1	1%
Unclear on proposal	2	3%
TOTAL:	70	
Skipped:	45	

Note: Items listed in this summary were compiled from key word or phrases in the open-ended questions.

- The largest contingency of respondents wished to do nothing at 17%, 13% of respondents said to prioritize natural areas, and 10% were against the use of bicycles.

Sample open-ended responses

- *I'd not change the trail routing. It's a waste of money. I would support maintenance of the existing trail and greenery.*
- *Maximally preserve natural habitat and minimize human intrusiveness.*
- *Leave as is except ensure bike lanes clearly marked on pavement and with warning signs.*
- *Separate the bicyclists from the pedestrians*

East End Option

8. What do you like about the concepts shown for the SE 35TH PLACE CUL-DE-SAC?

	#	%
Boat launch non-pay parking needed	1	1%
Concern about the cost	11	14%
Concern about transient use of parking	1	1%
Connectivity	1	1%
Connectivity and wayfinding	1	1%
Dislike parking improvements	1	1%
General support	11	14%
Need more options	1	1%
None	1	1%
Not clear on the proposal	5	6%
Nothing	23	29%
Parking improvements	11	14%
Parking improvements and seating area	3	4%
Play area	3	4%
Play area, parking improvements, and wayfinding	1	1%
Seating area and wayfinding	1	1%
Water access	1	1%
Wayfinding	1	1%
TOTAL:	78	
Skipped:	15	














Note: Items listed in this summary were compiled from key word or phrases in the open-ended questions.

- Nearly 30% of respondents said they liked nothing about these concepts, and another 6% were not clear on the proposal.
- 14% voiced general support, 14% said they were concerned about the cost, and another 14% said they liked the parking improvements.

Sample open-ended responses

- *I think this area is underutilized so anything to improve the utilization is good.*
- *I like the idea of improved wayfinding and signage, though I do not think the area needs to be majorly redeveloped.*
- *Nothing. Too much manufactured human intrusiveness.*
- *It provides a great place for transients to park their cars and sleep.*
- *DO NOT LIKE IT. No one would ever use that play area right next to the freeway. Seems like a waste of money.*

9. What do you like about the concepts shown for the BOAT LAUNCH AREA?

	#	%	
Access	6	8%	
Access and play area	2	3%	
Concern about the cost	10	13%	
General support	8	10%	
None	4	5%	
Not clear on the proposal	3	4%	
Nothing	23	29%	
Pedestrian experience	1	1%	
Play area	12	15%	
Play area and wayfinding	1	1%	
Restroom	6	8%	
Seating area	1	1%	
Wayfinding	1	1%	
TOTAL:	78		
Skipped:	15		

Note: Items listed in this summary were compiled from key word or phrases in the open-ended questions.

- Again, 29% of respondents indicated they did not like the concepts shown, and 13% were concerned about cost.
- 15% liked the play area, 10% voiced general support, and 8% liked the bathroom.

Sample open-ended responses

- I especially like the play structure for kids, especially near the water.*
- This is a boat launch not a playground. We have used this launch for many years and as one of the few boat launches on MI it should stay at it is. Addition of restrooms would be fine.*
- Make a value judgement. Not needed.*
- The playscape stuff rocks. I've got grandkids!*
- We need a bar and party boat area to drive rent revenue for city.*
- Getting in and out quickly is the most important thing, not creating art installations.*
- Flushing \$20 bills down the toilet would bring more satisfaction to me. This is going to be dark and noisy. No one walks by the boat launch: I used to live by there and no one goes there. Spend money fixing areas and things that people use.*

10. What would you change about either of the concepts shown here?

	#	%
Add drinking fountain	1	1%
Add path for pedestrians	2	3%
Boat launch should not be changed	4	5%
Concern about the cost	6	8%
Coordinate with other planned local development	2	3%
Do not include an off-leash dog park	1	1%
Do nothing	22	30%
Ensure adequate lighting	1	1%
General support	2	3%
Improvements should prioritize pedestrians and bicycles	1	1%
Include a roundabout	1	1%
Include more natural areas	2	3%
Include more parking	1	1%
Integrate with synagogue	1	1%
Keep restroom	1	1%
Keep the shore area natural	1	1%
No changes	6	8%
None	6	8%
Not clear on the proposal	2	3%
Prioritize natural areas	1	1%
Remove parking	1	1%
Remove play area	5	7%
Remove restrooms	3	4%
Use native plants	1	1%
TOTAL:	74	
Skipped:	19	

Note: Items listed in this summary were compiled from key word or phrases in the open-ended questions.




















- 30% of respondents suggest doing nothing, while 8% say they're concerned about the cost.

Sample open-ended responses

- Be sure to make the restrooms make it into the plan.
- Cul-de -sac should have basic maintenance. Boat launch restrooms would be great but it should stay a boat launch.
- Forget the playscape if Mercer Island is going to pay for it. We have bigger problems on Mercer Island that need fixing, not something new to maintain. If we were in better financial shape, then maybe.
- Looks like a good improvement.
- I question public restrooms - their draw for homeless people, public funds for upkeep, security, vandalism.

Luther Burbank Lid Option

What do you like about the LUTHER BURBANK LID concepts shown here?

	#	%	
Concern about the cost	7	8%	
General support	12	14%	
More information needed	1	1%	
Natural focus	4	5%	
None	2	2%	
Not clear on the proposal	1	1%	
Nothing	23	26%	
Nothing - prioritize natural areas	9	10%	
Pedestrian trail on the south side of I-90	1	1%	
Picnic area	1	1%	
Picnic area and staircase	1	1%	
Play areas	12	14%	
Playful design	4	5%	
Prioritize natural areas	2	2%	
Proximity to dense housing	1	1%	
Scenic outlook and staircase	1	1%	
Stair connection from 84th Ave and community areas	1	1%	
Staircase	4	5%	
Too fragile	1	1%	
TOTAL:	88		
Skipped:	8		

Note: Items listed in this summary were compiled from key word or phrases in the open-ended questions.

- 36% of respondents said do nothing, or do nothing and prioritize natural areas.
- 14% voiced general support, and 14% supported the play areas

Sample open-ended responses

- *Very clever! I appreciate the idea of natural looking playstructures.*
- *I like the idea of adding a play area and trees to the park.*
- *I think they are beautiful. Luther Burbank provides an incredible opportunity for children to experience the natural world close to the urban center of Mercer Island, so natural play structures seem appropriate and more in line with their surroundings. The structures also may prompt conversations and learning opportunities for children (for example playing the nest structures may lead to learning about our native bird species), and less plastic is always welcome!*
- *This is ridiculous. Instead of building a playground for children, let's fund YFS counselors to improve their mental health and keep our children safe.*
- *This space has always been rarely used and any improvements would be a waste of money.*

11. What would you change about the LUTHER BURBANK LID concepts shown here?

	#	%
Add shelter	1	1%
Add wayfinding	1	1%
Concern about safety on multiuse path	3	4%
Concern about the cost	8	10%
Concern about vandalism	1	1%
Connect to commercial district	1	1%
Do not remove the basketball courts or include a dog park	1	1%
Do nothing	11	14%
Do nothing - prioritize natural areas	3	4%
General support	8	10%
Improve bike park at Snake Hill	1	1%
Include a grassy field for use as a dog park	1	1%
Include a unique feature like a climbing wall or skate park	1	1%
Include parking	1	1%
Include solar panels	1	1%
Include trails for pedestrians and bicycles	1	1%
Include volleyball court	1	1%
Increase ADA accessibility	3	4%
Increase connection to other parks	1	1%
Keep design simple	1	1%
More information needed	2	3%
None	3	4%
Not clear on the proposal	1	1%
Play areas should be suitable for a range of ages	2	3%
Playful natural elements do not make sense	4	5%
Prioritize natural areas	6	8%
Prioritize walking trails	1	1%
Remove play areas	3	4%
Remove restrooms	1	1%
Replace improvements with unpaved walking path	1	1%
Use funds for park maintenance instead of improvements	2	3%
Use native plants	1	1%
TOTAL:	77	
Skipped:	19	






Note: Items listed in this summary were compiled from key word or phrases in the open-ended questions.

Sample open-ended responses

- *Eliminate all the manufactured items. They become a target for vandalism and another area of city maintenance burden.*
- *They represent the desires of out-of-control bureaucrats at the city, county and state levels ALL desiring to burn public resources for the most trivial and frivolous purposes imaginable.*
- *Make sure there are good walking/ biking trails with wayfinding throughout this lid. My sense is it's not heavily used or even known about.*
- *Just create a walking path...preferably unpaved*

Park on Lid – W Mercer to 72nd

12. On a scale of 1-5, where 1 is no way and 5 is absolutely, should the city consider synthetic surfacing for the soccer field on the lid?






	#	%	
1	39	44%	
2	8	9%	
3	14	16%	
4	11	13%	
5	16	18%	

TOTAL: 88

Skipped: 8

- Overwhelmingly, 53% of respondents believed the city should not consider synthetic surfacing for the soccer field on the lid, whereas 31% felt the city should consider this option. 16% were neutral.

13. On a scale of 1-5, where 1 is no way and 5 is absolutely, should West Mercer Way be improved for drop-off and ADA parking?

	#	%	
1	37	41%	
2	7	8%	
3	20	22%	
4	10	11%	
5	17	19%	




TOTAL: 91

Skipped: 5

- Over 50% of respondents felt the city should not improve drop-off and ADA parking, whereas 30% felt this option should be considered. 22% were neutral.

EXPANDING GATHERING/FAMILY ACTIVITIES

14. Which concept do you prefer for expanding gathering / family activities in the open space near West Mercer Way and existing basketball courts and why?









	#	%	
Option A	10	11%	
Option B	28	31%	
Neither	52	58%	

TOTAL: 90

Skipped: 6

- Most people (58%) did not feel that either option was suitable. 31% supported Option B, and 11% supported Option A.











Responses if 'Option A' was selected:

	#	%	
Add the off leash dog area	1	13%	
Better use of space currently used for basketball courts	1	13%	
Do not remove the tennis courts	1	13%	
Natural play elements	1	13%	
Prioritize basketball courts	1	13%	
Rain shelter	1	13%	
Suggest restricting parking	1	13%	
Turfed field	1	13%	
TOTAL:	8		
Skipped:	2		

Note: Items listed in this summary were compiled from key word or phrases in the open-ended questions.

Responses if 'Option B' was selected:

Why do you prefer Option B?

	#	%	
Option A does not maintain the park's natural look and feel	1	4%	
General support	1	4%	
Like the bouldering/fitness areas	5	22%	
More activities for kids	1	4%	
More green space	5	22%	
Natural play elements	2	9%	
Off leash dog area	2	9%	
Preserves basketball courts	2	9%	
Prioritize basketball courts	3	13%	
Remove off leash dog area	1	4%	
TOTAL:	23		
Skipped:	5		

Note: Items listed in this summary were compiled from key word or phrases in the open-ended questions.

Sample open-ended responses

- *A is ugly, b is ok but don't love it. I REALLY want an open area for dogs. LB was ruined with a silly sand pit and hope that you don't take away our ability to walk when the rain/winds prevent us from using pioneer park.*
- *Opt B seems is preferred as it seems to leave more of the greenspace intact, which is the point of a park.*
- *We need more green...trees, plants. This whole plan seems to be catering to kids, what about the adults and dog walkers.*
- *I like the more natural option as it will fit the location better*

Responses if 'Neither' was selected:

Why do you prefer neither option?		
	#	%
Do not like off leash dog area	1	2%
Basketball and tennis courts should both be preserved	1	2%
Bicycles and pedestrians should not share a path	1	2%
Both options remove green space	8	18%
Concern about the cost	6	14%
Concern about use by the homeless	1	2%
Confused about survey	2	5%
Do not remove the tennis courts	2	5%
More parking is unnecessary	3	7%
Natural play elements	1	2%
No changes are needed	14	32%
None	1	2%
Options cater too much to kids and bicycles	1	2%
Prioritize basketball courts	2	5%
TOTAL:	44	
Skipped:	8	

Note: Items listed in this summary were compiled from key word or phrases in the open-ended questions.




- Most people selected this option because they believe no changes are needed, and don't like that both Option A and Option B remove green space.
- As is a theme throughout the survey, respondents are concerned about the cost of all proposals.

Sample open-ended responses

- *It's perfect as is. Use the money for other pressing issues around the City.*
- *Looks like a lot of open space is being taken away with either concept. To me the park is a place to enjoy greenery, not structures or enormous wide pathways. Keep the parks dirt, grass, trees, blackberries, & shrubs, not concrete, structures & wide paved areas.*
- *Sufficient space exists elsewhere on Mercer Island for Mercer Island citizens. The proposed expansions would encourage regional infringement.*
- *The park as it is great. It needs some TLC but not a re purposing.*
- *Picnic areas are ok but I would prefer to keep the area open and natural with trees and grass.*
- *I like them just the way they are. If you start introducing climbing walls, should someone have a bad fall and injure themselves, are you, the City, responsible? And you keep forgetting, you don't have money. Why are you looking to come up with expensive projects when you don't have money? It doesn't make sense.*







TENNIS COURT ACCESSIBILITY AND MORE GATHERING/FAMILY ACTIVITIES IN THE AREA

15. Which concept do you prefer for making the tennis court area more accessible and programming more gathering / family activities in this area and why? (or neither)

	#	%	
Option A	9	10%	
Option B	23	26%	
Neither	58	64%	
TOTAL:	90		
Skipped:	6		

Response if 'Option A' was selected:










Why do you prefer Option A?

	#	%	
More functional	1	13%	
More aesthetically pleasing	1	13%	
Offers more seating	1	13%	
Prefer off leash area	1	13%	
Prefer open lawn	1	13%	
Tennis courts are not needed	1	13%	
TOTAL:	6		
Skipped:	3		

Note: Items listed in this summary were compiled from key word or phrases in the open-ended questions.

Response if 'Option B' was selected:

Why do you prefer Option B?

	#	%	
General support	1	13%	
Includes activities for teens	1	13%	
More family friendly	1	13%	
Paths are more direct	1	13%	
Picnic areas	1	13%	
Prefer off leash area	1	13%	
Preserves tennis courts	1	13%	
Prioritize green space	2	25%	
Prioritize play areas	1	13%	
TOTAL:	10		
Skipped:	13		

Note: Items listed in this summary were compiled from key word or phrases in the open-ended questions.

Response if 'Neither' was selected:

Why do you prefer neither option?		
	#	%
Confused about survey	1	2%
Both options remove green space	1	2%
Cars not needed	1	2%
Concern about the cost	1	2%
Confused by the survey	1	2%
Congestion	1	2%
Do not include the off leash area	1	2%
Encourages use by non-residents	3	7%
Lawn by tennis courts should be repurposed	2	4%
More activities for teens	1	2%
No changes are needed	20	44%
No opinion on tennis courts	1	2%
Not ADA accessible	1	2%
Other activities are needed	1	2%
Park improvements will not be used	1	2%
Parking is currently adequate	1	2%
Preserve the tennis courts	4	9%
Tennis courts are not needed	1	2%
Too elaborate	1	2%
Viewing area instead of tennis courts	1	2%
TOTAL:	45	
Skipped:	13	

Note: Items listed in this summary were compiled from key word or phrases in the open-ended questions.




- 44% of respondents suggest no changes are needed, 9% wish to preserve the tennis courts, and 7% are concerned the options encourage use by non-residents.

Sample open-ended responses

- Keep the playground where it is but make it more interesting and active. Places to hide and climb. Less pre-fab boring play structures.*
- Saving money by keeping the tennis courts in their current spot, and adding an activity zone is a good balance. Adding many picnic tables in this area will not get as much use for the money.*
- The tennis courts are very accessible now, but other activities should be added to the area.*
- This area is fine as it is. There is plenty of parking and the picnic tables and open grass areas do not need to be changed.*
- FISCALLY IRRESPONSIBLE. COURTS ARE PERFECT. PLEASE STOP ADDING PAVEMENT TO OUR PARKS.*
- Increased accessibility to facilities will encourage more off island users.*

IMPROVING AREA OF STACKS FOR ACCESSIBILITY AND SECURITY




16. Which concept do you prefer for improving the use of the area around the existing stacks to improve accessibility and increase eyes on the park for safety and security in this area and why? (or neither)

	#	%	
Option A	6	7%	
Option B	21	25%	
Neither	56	67%	
TOTAL:	83		
Skipped:	13		

- Two thirds of respondents do not like either option.

Response if 'Option A' was selected:









Why do you prefer Option A?

	#	%	
Do not include an off leash area	1	13%	
General support	1	13%	
Open spaces are not cozy	1	13%	
TOTAL:	3		
Skipped:	3		

Note: Items listed in this summary were compiled from key word or phrases in the open-ended questions.

Response if 'Option B' was selected:

Why do you prefer Option B?

	#	%	
Bouldering area	1	8%	
General support	1	8%	
More aesthetically pleasing	1	8%	
Offers more activities	1	8%	
Prioritize green space	1	8%	
Security is not an issue	1	8%	
Support the off leash area	6	46%	
Support the shade structure	1	8%	
TOTAL:	13		
Skipped:	8		

Note: Items listed in this summary were compiled from key word or phrases in the open-ended questions.

Response if 'Neither' was selected:

Why do you prefer neither?		
	#	%
Area is already a de facto off leash area	1	2%
Concern about the cost	2	5%
Confused about survey	5	12%
Do not include an off leash area	2	5%
Dog walkers concerned about being restricting to	1	2%
Encourages use by non-residents	1	2%
Ensure fence is tall	1	2%
Install cameras	1	2%
More information needed	1	2%
No changes are needed	15	36%
None	1	2%
Off leash area should be fenced	1	2%
Play areas are too safe - safety is a parent's job	1	2%
Prefer only the look-out area	1	2%
Preserve basketball courts	1	2%
Prioritize green space	3	7%
Remove bushes	1	2%
Security is not an issue	3	7%
TOTAL:	42	
Skipped:	14	

Note: Items listed in this summary were compiled from key word or phrases in the open-ended questions.






- There were varied reasons why people chose 'neither', however 36% of those who chose this option suggest no changes are needed.

Sample open-ended responses

- I would say just ensure that the fence around is very tall and to make sure that there is very dense vegetation around the fence to prevent anyone from climbing it.*
- It's perfect as is. Use the money for other pressing issues around the City.*
- People will allow their dogs off leash in that area whether you say they can or not. With no enforcement of the leash rules in that area they have already de facto made it an off leash area and it will be very difficult to change that behavior.*
- MI can't afford any part of this "improvement"*
- I think we need to take out all the bushes. As someone who lives near the LID - this is where all the trouble happens. This is where teens do things like drink, smoke, etc. We don't need added accessibility.*
- If the City is concerned about security, install cameras. Allow the community to paint the stacks - perhaps a place where graffiti is allowed - maybe people would be less likely to do it elsewhere.*

Park on Lid – 72nd to 74th

17. On a scale of 1-5, where 1 is no way and 5 is absolutely, would you support a concept that included additional ADA parking and a drop-off area near the cul-de-sac at 74th Avenue SE?

	#	%	
1	36	42%	
2	8	9%	
3	11	13%	
4	19	22%	
5	12	14%	




TOTAL: 86

Skipped: 7

- 42% of respondents are strongly unfavorable to ADA parking and drop-off areas in this portion of the Park on the Lid.

INCREASE GATHERING/FAMILY ACTIVITIES EAST OF BALLFIELDS





18. Which concept do you prefer to increase gathering / family activities in the open space area east of the existing ballfields and why? (or neither)

	#	%	
Option A	8	9%	
Option B	32	37%	
Neither	47	54%	

TOTAL: 87

Skipped: 6

Response if 'Option A' was selected:

	#	%	
Concern about parking	1	20%	
Keep tennis courts	1	20%	
More green space	2	40%	
Support off leash dog park	1	20%	

TOTAL: 5

Skipped: 3

Note: Items listed in this summary were compiled from key word or phrases in the open-ended questions.

Response if 'Option B' was selected:

	#	%
Expand playground	1	5%
Improve playground	1	5%
Increase gathering spaces	1	5%
Keep tennis courts	1	5%
Like overlook	4	18%
More green space	1	5%
More play structures	2	9%
No change	4	18%
No off leash	3	14%
Support off leash dog park	3	14%
Support trails	1	5%
TOTAL:	22	
Skipped:	10	

Note: Items listed in this summary were compiled from key word or phrases in the open-ended questions.

Response if 'Neither' was selected:

	#	%
Add ballfields	1	3%
Concern about bikes	2	5%
Concern about costs	6	15%
Concern about homeless	1	3%
Confused about the options	1	3%
Increase ADA parking	1	3%
Keep green space	1	3%
Keep tennis courts	2	5%
More green space	3	8%
Neither	4	10%
No change	12	30%
No off leash	6	15%
TOTAL:	40	
Skipped:	7	

Note: Items listed in this summary were compiled from key word or phrases in the open-ended questions.

Sample open-ended responses

- *Don't love hardscapes. Not sure what you think it will be used for. Prefer as much greenery and open as possible (no fences).*
- *I use dog parks, they also increase year round use in the park, whereas younger families use the parks less in the winter than dog families*
- *Playgrounds near sporting fields is very helpful for siblings of athletes. I do love the observation area concept.*
- *Again I vehemently oppose off leash areas near highly trafficked play areas*
- *Increased shelters will encourage homeless gatherings like just across the floating bridge in Seattle.*
- *There are parts of both plans that I like but I don't love either one.*

19. What would you change in any of the concepts?

	#	%	
Add bouldering area	1	2%	<div></div>
Add parking	1	2%	<div></div>
Add volleyball court	1	2%	<div></div>
Amenities for young people	3	6%	<div></div>
Concern about bikes	4	8%	<div></div>
Concern about costs	8	16%	<div></div>
Concerns about traffic	1	2%	<div></div>
Increase ADA Parking	1	2%	<div></div>
Increase open space	2	4%	<div></div>
Keep off leash	4	8%	<div></div>
Keep tennis courts	4	8%	<div></div>
More open space	1	2%	<div></div>
No change	13	25%	<div></div>
No off leash	5	10%	<div></div>
Reduce concrete	2	4%	<div></div>
TOTAL:	51		
Skipped:	42		




Note: Items listed in this summary were compiled from key word or phrases in the open-ended questions.

Sample open-ended responses

- *It's perfect as is. Use the money for other pressing issues around the City.*
- *We need to retain green space. We do not have to pave over areas of the park. Keep it simple and think about how much this will cost. This is not a bicycle thruway. People need to be able to walk and enjoy each other when they meet without worrying about being run over by a fast moving bike.*
- *I'm guessing that these changes will also include an attempt to limit dogs and their owners from the park. I do not support this so any proposal will also have to state that no new areas will be made out of limits for dogs and their owners.*
- *Eliminate them...a waste of \$*
- *Just please leave everything alone. If there is a way to make some traffic calming measures without being gaudy, then fine, but please show us. And also show us where the fast bicyclists will be riding.*
- *Support Option A if dog park will be in final design. Don't see need for fence around ball fields.*
- *Not too sold on the off the leash area.*
- *I support ADA parking & accessibility as well as improved drop off areas, but I don't want to expand parking otherwise. I would like the priority to be to keep our green spaces green and see the city/state prioritize alternative modes of transportation (like bikes/bike shares/walking/bus service) to get to and from the park.*
- *This all sounds like a significant increase in our property taxes down the road. Enough is enough.*











Park on Lid – SE 24th Open Space

20. Which concept do you prefer to increase gathering / family activities in the SE 24th Street Open Space and why? (or neither)

	#	%	
Option A	19	21%	
Option B	18	20%	
Neither	52	58%	
TOTAL:	89		
Skipped:	3		




- As is a theme throughout this survey, the majority of respondents (58%) did not prefer either option.

Response if 'Option A' was selected:

	#	%	
Concerns about safety	1	7%	
Like wayfinding	1	7%	
More amenities for young people	1	7%	
More general use	1	7%	
More green space	2	14%	
No major changes	1	7%	
No more parking	2	14%	
No preference	1	7%	
Support additional picnic options	1	7%	
Visually appealing	3	21%	
TOTAL:	14		
Skipped:	5		












Note: Items listed in this summary were compiled from key word or phrases in the open-ended questions.

Response if 'Option B' was selected:

	#	%	
More active uses	1	8%	
More interactive space	1	8%	
No major changes	1	8%	
No preference	1	8%	
Visually appealing	8	67%	
TOTAL:	12		
Skipped:	6		

Note: Items listed in this summary were compiled from key word or phrases in the open-ended questions.

Response if 'Neither' was selected:

	#	%	
Concerns about costs	6	14%	
Concerns about maintenance	1	2%	
Dislike changes	1	2%	
More green space	8	19%	
More natural materials	6	14%	
No changes	10	23%	
No major changes	4	9%	
No more concrete	3	7%	
No preference	2	5%	
Preserve green space	1	2%	
Too much change	1	2%	
TOTAL:	43		
Skipped:	9		

Note: Items listed in this summary were compiled from key word or phrases in the open-ended questions.

Sample open-ended responses

- *Both of these plans destroy the natural, peaceful part of the park. Most of the people that go there to enjoy nature. This current plans eliminate the glassy areas in favor of pavement.*
- *It's perfect as is. Use the money for other pressing issues around the City.*
- *I probably sound like a broken record, but this project is to enhance a green space that crosses Mercer Island. We have plenty of urban space where families can experience modern art, medal structures, and plastic playgrounds. This space is green, should stay green, and should teach our children how to live more sustainably and in harmony with our natural world.*
- *I don't want to add car access to the park. I think we should keep green areas green. Option B with a parking focus would make this area more unpleasant for cyclists, pedestrians and families.*
- *I like this playful look with opportunities for kids to engage.*
- *This area could be used as is for walking up to the more open area where the fields are and dog area is.*
- *FISCALLY IRRESPONSIBLE. CITIZENS WANT TREES AND NATURAL NATIVE FLORA. PLEASE FOCUS MONEY ON PLATING NATIVE CONIFER TREES WHERE POSSIBLE*
- *Let's try and keep it natural !!*
- *Too much money and citizen time has already been wasted. Citizens do not want wider paths or more paved surfaces in our parks. Retain green space.*
- *Option B with its artistic use of materials that can also be played with/on is a more visually appealing and functional use of the space.*

21. What would you change in any of the concepts?

	#	%	
Add bouldering	1	2%	<div></div>
Add off leash	1	2%	<div></div>
Concerns about bikes	1	2%	<div></div>
Concerns about costs	3	7%	<div></div>
Concerns about maintenance	1	2%	<div></div>
Confused	1	2%	<div></div>
Dislike changes	4	9%	<div></div>
Like play structure	2	5%	<div></div>
More ballfields	1	2%	<div></div>
More green space	9	20%	<div></div>
More natural materials	2	5%	<div></div>
More seating	3	7%	<div></div>
No changes	12	27%	<div></div>
No preference	1	2%	<div></div>
Not visually appealing	1	2%	<div></div>
Too much change	1	2%	<div></div>
TOTAL:	44		
Skipped:	48		
















Note: Items listed in this summary were compiled from key word or phrases in the open-ended questions.

Sample open-ended responses

- *Don't put a bunch of structures and concrete in the park!*
- *Burn them, or visit them on some other community gullible enough to accept your "choices".*
- *Definitely NO MORE art. The "art" that you have is hideous.*
- *Leave it relatively as-is.*
- *Not necessary, not environmentally friendly, not inviting, not safe.*
- *Get rid of all the bright lights for a start, and the metal bars, and the cement. It is too artificial. We are a bedroom community which you keep forgetting.*
- *Make a combination of uses. Wayfinding and seating should be included but perhaps expanded seating including tables/shaded areas given the lack of adequate town center gathering places.*
- *I would leave it natural as is*
- *Please, just think natural. This looks like they are going to pave over the parks, we don't want that. Where are you going to get the money from for these projects?*
- *Redirect high-speed bikers to North Mercer Way.*
- *Include picnic space, add trees. A play structure invites families.*







Demographics

22. What neighborhood do you live in?

	#	%	
East Mercer	8	9%	
East Seattle	7	7.3%	
Ellis Pond	2	2.1%	
First Hill	19	19.8%	
Forest Avenue	1	1.0%	
Fruitland	1	1.0%	
Island Point	3	3.1%	
Mercer Island Estates	2	2.1%	
Mercerdale	4	4.2%	
Mercerwood	7	7.3%	
North End	14	14.6%	
South End	8	8.3%	
The Lakes	3	3.1%	
Town Center	6	6.3%	
West Mercer	6	6.3%	
TOTAL:	91		
Skipped:	9		

- Roughly 20% of respondents are from the First Hill neighborhood, with about 15% from the North End.

23. What age group are you in?

	#	%	
<18	0	0.0%	
18-24	2	2.1%	
25-34	6	6.3%	
35-44	15	15.6%	
45-54	21	21.9%	
55-64	22	22.9%	
65+	30	31.3%	
TOTAL:	96		
Skipped:	4		

- Over half of the respondents are over the age of 55, and nearly 75% are 45 years old or older.
- Very few younger residents responded to the survey.

Aubrey Davis Park Master Plan

Open House #2 | MEETING NOTES

February 28, 2019

Plan Area

Notes

Corridor Trail
Improvements
(Sheet 1)**Overall (9 orange dots)**

- Need more options for local residents. No more parking. What about options for kids 8-22?
- Don't widen the park trails
- Focus on resident needs first
- This is too wide for pedestrian crossing
- Raise up crosswalk to enhance visibility of pedestrians and bikes to cars, slow cars down
- More parking would be good with access to picnicking
- Too many bike/ped accidents here (2 crossings at 72nd Ave SE). Youth do not expect bike when heading to bathroom – and vice versa
- Try to get WSDOT to replant, water and care for trees
- Where is the bike path to the town center?
- Sculpture park between 77th and 78th. Remove ivy from trees. Replant trees that have died. Prevent freeway pollution.
- Please take the bikes off this path altogether (around Mercer Way, SE 24th ST and 81st Ave SE) and have them take the bikes along 84th Ave and use the bike paths
- On-street bikes – How does city pay for bike lanes?
- On-street improvements won't push bike users onto the street – particularly commuters – will use the most direct route.

Park on the lid trail section (6 green dots, 7 orange dots)

- Put speedbumps on trails to slow down the bikes

East corridor trail section (3 green dots, 8 orange dots)

- Put speedbumps on trails to slow down the bikes
- I understand wanting trails narrow but safety matters. 2' is not wide enough to provide safety for a parent with a child

	<p>Traffic Calming examples (Left to right: A - 3 orange dots; B – 4 green dots, 2 orange dots; C – 2 green dots, 1 orange dot; D – 2 green dots, 1 orange dot; E – 2 green dots, 3 orange dots)</p> <ul style="list-style-type: none"> ● I like this colorful “calming” ● Yes bike lanes on the road
Corridor Trail Improvements (Sheet 2)	<p>Overall ()</p> <ul style="list-style-type: none"> ● Need lights in winter – pedestrians worried about being hit by bikes in the winter ● No ped route here. Keep natural (2 green dots) ● May want to limit seating for maintenance. Focus at slopes (top of hills) ● Please add a crosswalk across SE 36th Street so that pedestrians can easily cross the trail ● Please create a trail through this city owned property to connect the Mercerwood Neighborhood to the park/trail ////
PROCESS TO DATE	<p>Under “Sports and Boating”</p> <ul style="list-style-type: none"> ● No more parking is needed; all spaces are only taken for times like Blue Angels
KEYMAP	<ul style="list-style-type: none"> ● Crosswalk flashers when people are using at the west end near I-90 entrance ● Permanent restroom at west end would be great ● Remove the painted mural at the I-90 exit at West Mercer, Awful ● I love the new mural! Restful after coming from the city ● Off-leash in lid park is great – keep it that way! Fence off off-leash to keep separate from trail ● Avoid herbicides, compost trimmings, light pathways, use solar panels, and include multi-lingual signage ● Add walking trail to “wooded” section (not a bike path – a “rustic walking path”) ● Walking along natural paths ● Keep I-90 bike trail open for bike commuters ● Keep plant height less than 5' ● Be sustainable ● Updates on process on website, etc. as a YouTube video ● Signs in parks/landscape in multiple languages ● Do a story map for Aubrey Davis Park (like they did for sculpture gallery) ● Survey too many questions
ACTIVITIES	<p>Gathering (1 dot)</p> <ul style="list-style-type: none"> ● (One dot on mound photo)

	<p>Family Activities (2 dots)</p> <ul style="list-style-type: none"> ● (One dot on artful sandbox photo) ● (One dot on playground photo) <p>Courts (1 dot)</p> <ul style="list-style-type: none"> ● (One dot on court photo that says "Tennis Courts") ● Tennis courts have many cracks that <u>need</u> repair ● Tennis court nets are broken ● Court is cracked – fix cracks <p>Other/What else?</p> <ul style="list-style-type: none"> ● Off-leash dogs need to be in fenced area please ● I like things just as they are – no wider paths
PROGRAMMING Segment 1	<ul style="list-style-type: none"> ● Passive recreation such as fishing at the water access point
PROGRAMMING Segment 2	<p>Area C</p> <ul style="list-style-type: none"> ● (Sports dot on field) ● (Gathering area dot on field) ● (Family activities dot on field) ● Trees way overgrown. Can't see beautiful views that the island is so lucky to have ● Trees are overgrown onto trail on southeast side of park (x2) ● I lead group bicycle rides and I'd love to start from the Segment 2 parking lot but the time limit is 2 hours; typical bike ride is 4 hours <p>Trail</p> <ul style="list-style-type: none"> ● Trail 6' wide only through park ● No change in width of path – wider and faster bikes are more dangerous to other users ● Bikers zoom so fast they almost hit pedestrians, especially the elderly. Need separate bike lanes ● Trail 10' wide ● Need fence between dog areas and trail; poop bag dispenser and garbage can and signage at voice control <p>Area B</p> <ul style="list-style-type: none"> ● (Sports dot in Area B)

- (Gathering dot south of playground in Area B)
- Keep Area B as a family/open area

Tennis Court Area

- (Sports dot in tennis court area)
- (Family activities dot in tennis court area) (x2)
- Area by the tennis courts has one of the best views in the park – how can we make this available to more people
- Need sign-up sheet for courts – too many people waiting/fighting for court time

Other

- Survey didn't consider "no change" option as if nothing is there now
- After activities on fields – immediate maintenance repairs to divets/torn up areas, etc.
- No field lights and no astroturf please, thanks
- All lighting should point down and not shine into neighborhoods or the eyes of migrating birds
- Stacks could be amazing pieces of artwork
- Basketball court area could be a stunning piece of art
- Keep park as is and no reason for any change and can't afford it
- In WSDOT maintenance area: more sport courts in addition tennis, pickleball, table tennis, etc.

PROGRAMMING Segment 3

Other

- Ivy is killing the trees; please remove it
- No more rubber matting and no more plastic [in playground]; it should be more natural
- Major trail to town center going east on south side of Area A
- Transient drug use in forested area on the west side of I-90 and N Mercer Way intersection
- First hill does not have sidewalks for the walkers; provide walkers with a trail loop around the perimeter of the Aubrey Davis lid park
- Bikes should use street not park – park is for kids and residents
- Bikes belong on streets NOT in park
- Cars come too fast going north/south on 72nd
- Need crosswalk connecting top of ramp across 72nd
- Vehicular conflict zone at 72nd and 24th – possible to route cars onto 71st: low visibility due to grades; pedestrian crosswalk not visible at top of hill

	<p>Ramp to 72nd Ave SE</p> <ul style="list-style-type: none"> ● Opportunity for artwork along ramp wall ● Ramp is first opportunity for parks to get off street – keep it <p>Restroom Conflict Zone</p> <ul style="list-style-type: none"> ● (Gathering area dot on field) ● Loop around field used as trike trail – conflict with faster bikes around restroom ● Conflicts with bicyclists need to watch out for dogs here. Blind spot – they are going too fast ● Re-route bikes behind restroom
PROGRAMMING Segment 4	<p>Opportunity Area F</p> <ul style="list-style-type: none"> ● (Gathering area dot here) ● Less grass; sustainable groundcover and more edible plants <p>76th Ave Overpass</p> <ul style="list-style-type: none"> ● Irrigation leaking/problems in 76th Ave overpass ● Realign trail here for safety <p>Other</p> <ul style="list-style-type: none"> ● (Gathering area dot at cul-de-sac on Sunset Highway) ● Foot, bike trail to 77th Ave SE (From bike path along N Mercer Connector) ● Madrona (cropped) creating sight distance issue at intersection of N Mercer Way and 76th ● Boundary check just north of this tree ● Trees that have been cut because of disease do not have to be replaced. Use money for more trees needing replacement elsewhere ● Maintain trees – all cedars dying along corridor ● Drug use and dumping at NE corner of 77th Ave SE and N Mercer Way ● Terrace trail along contour and open understory (reduce homeless)
PROGRAMMING Segment 5	<p>Other</p> <ul style="list-style-type: none"> ● Love to see more public art ● Bikes in bike only lane ● Keep bikes on road (for bikes going east on SE 24th street) ● Yes, bikes on road <p>Sound Transit Parking Area</p> <ul style="list-style-type: none"> ● Need place for car share and drivers to drop-off/pick up riders

	<ul style="list-style-type: none"> ● Different colors between peds and cyclists would be better – can't see symbols from a far distance ● Hate green, walkers go on full width ● Need a bus rider drop-off/pick up area ● Bicycle crossing – in blind spot of left turn vehicle – hazard ● Please add yield sign for cyclists travelling east on N Mercer Way to yield to cars turning left (North) at 81st SE <p>New Sound Transit Station</p> <ul style="list-style-type: none"> ● West end: Too much transparency and doesn't meet original MOA & intent ● East end: Keep lots of green and add more trees at entry ● East end: Minimal change – keep just as green and replace landscape <p>Sculpture Garden</p> <ul style="list-style-type: none"> ● Mitigate the freeway noise and sight of new 77th Ave light rail station by re-planting evergreen trees in the open space where trees have died behind the bench ● Incorporate seating artistically along path ● I love artwork in the community
PROGRAMMING Segment 6	<p>Opportunity Area G</p> <ul style="list-style-type: none"> ● Better walking space between SE 27th Street and entrance to Opportunity Area G ● Entrance to Luther Burbank Park from city ● Entrance to Luther Burbank Park from town center ● (Gathering area dot in NE corner) ● Luther Burbank outreach center <p>Opportunity Area H</p> <ul style="list-style-type: none"> ● "The Lookout" – overhang area to the north ● (Gathering area dot in north section) ● Name and sign as "Luther Lid" ● Keep open/natural area <p>Other</p> <ul style="list-style-type: none"> ● Keep the bikes out of the park ● No bikes in park ● Keep bikes on the I-90 bike trail ● No improvements and activities wanted in this part of the park

PROGRAMMING Segment 7	<p>Other</p> <ul style="list-style-type: none"> ● Connect Shorewood and Upper Luther Burbank Park via trail on south side of I-90 ● We like the park as it is! No changes! Use \$ for maintenance not new construction ● Complete east portion of Upper Luther trail up into Shorewood – now only ending in the ravine ● Existing trails to ravine in cul-de-sac in Shorewood neighborhood ● No improvements or activities wanted in this part of the park ● Put some water in the planters along the Shorewood drive overpass <p>Bikes</p> <ul style="list-style-type: none"> ● Bikes here along N Mercer Way ● Put bikes on road (widen) and 6' trail only ● The city spent a lot of money making roads safe for bikers; keep them on roads
PROGRAMMING Segment 8	<p>Boat launch</p> <ul style="list-style-type: none"> ● Parcel by the boat launch should be acquired ● Restroom in area just to the right of the boat launch <p>Opportunity Area I</p> <ul style="list-style-type: none"> ● (Gathering area dot here) ● (Family activities dot here) ● There are no public playgrounds in this quadrant of the island – would be great to see a small playground for kids (x2) ● Access area for gatherings, bike rides/events (gather and park here) <p>Opportunity Area J</p> <ul style="list-style-type: none"> ● (Family activities dot here) (x2) ● Protect bike/pedestrian access to park along E Mercer Way <p>Other</p> <ul style="list-style-type: none"> ● (Family Activities dot in forested area behind Bright Horizons) ● Connector Trail to access park from Mercer Wood neighborhoods ● Pedestrian scale lighting to improve commute and improve safety ● Fix root bumps & cracks in asphalt of bike trail
TRAILS Lidded Park	<ul style="list-style-type: none"> ● Add restroom on West side ● Trees along west side of I-90 trail need to be cut – are way overgrown

	<ul style="list-style-type: none"> ● Bikers speed down this hill [west side of I-90 trail] ● Loop walking trail along north side of lidded park ● Make it lighted (x2) ● Bikers speed on trail down the hill east of W Mercer Way – not safe for walkers ● Entrance to park needs barricade between 66th Ave parking lot and trail ● This sidewalk is bad – easy to fall down ● Bikes speed around corner approaching 72nd overpass ● Improve this area only at trail and overpass intersection ● Tennis courts: fix cracks, sign-up sheet (always people) ● Fix courts ● Sidewalk access to park on the north side of park at 72nd ● No sidewalks in neighborhoods south of park – need a place to walk! ● Love having sculpture in this park ● Bikes & off-leash dogs – conflicts ● Fencing or designated off-leash area ● Keep trail width as-is (x3) ● Safer roads for hwy bike users – trail for everyone else on other side
TRAILS Town Center	<ul style="list-style-type: none"> ● Move cyclists to road northbound (right lane – shared with bus) ● How will bikes get from bike trail to bike parking on 77th at light rail? Consider ped/bike/bridge to facilitate safe crossing ● Needs trees at sculpture garden ● Accommodate bikes through I/S of 81st and the PiR. Explore bike signals. High conflict areas that need fix on N Mercer Way ● Right hook issues at park & ride entry; signs, bike signal ● Need WF signs; bikes at park and ride ● Very tight spot at Island Crest Way apartments – not much room ● Sign alternate routes for bikes to avoid pinch point ● Tully's site - How will we get # cars in and out of here? ● Intersection with all extra cars at Sunset Hwy and 77th ● Lots of congestion on city streets on SE 27th
TRAILS East Segment	<ul style="list-style-type: none"> ● The wider you make it the more it'll attract users. ● Concerns with congestion at intersection from current land uses ● Cross Section D – No shoulder, but separate paved and gravel path where possible ● Safety warning (balls) ● Using road more because of bumps (roots) in trail ● Accesses to trail are dangerous ● Move high-speed cyclists to North Mercer Way

	<ul style="list-style-type: none"> ● Faster routes to trail are dangerous
TRAIL EXPERIENCE	<ul style="list-style-type: none"> ● Trail signage – where am I supposed to be? Bike signal at Park & Ride ● Wayfinding ● Map of the park – mileage marker ● Save the trees – mature ones ● Save the trees ● Preserve the natural feel of trail ● City to provide specific location of conflicts and accident data ● Need to get independent counts for bicyclists on existing trail <p>Trail Design</p> <ul style="list-style-type: none"> ● 14' trail probably a good idea - more leisurely, comfortable, safer. ● Keep to the 10' provide a second separated pedestrian trail ● Narrow trails promote slower speeds & safety! ● Delineated trail; separate trail for cyclists and peds ● Please do not widen trail! ● On 14' bike path, be sure to have a center stripe ● Please don't allow paths to be widened ● Very opposed to widening any portions to 14' (x7) ● Separate bike lanes! Cyclists move way too fast. All weave through pedestrians (esp. elderly). Very unsafe. ● Bikes belong on the roads not on park trails- dangerous for everyone else! ● Lighting on trails ● Separate bikes & peds, more "no dog" signs, voice control is a problem ● Keep to the 10'; provide a second separated ped trail ● 2 paved trails to separate wheels from peds (See Myrtle Edwards Park) – by C. Ridolfi ● Separate paved & gravel trails where possible; through cyclists should be on the road ● Dogs on-leash ● Only widen portions to address conflicts <p>Trail Location</p> <ul style="list-style-type: none"> ● Trail to Upper Luther Burbank needed ● Keep the bikes out of the park ● Bikes use streets not park paths ● The paved I-90 bike trail is important for bike traffic and off-island including bike commuters and recreational riders.

	<p>Trail Users</p> <ul style="list-style-type: none"> ● Safety for pedestrians getting to & on the trail ● No electric bikes on pathways ● Widen trail, slow down cyclists! ● The 1% experienced/confident bikers do not share the trail. Too fast for conditions!
TRAIL EXPERIENCE	<p>Wheels</p> <ul style="list-style-type: none"> ● 3 dots – faster through cyclist ● 5 dots – fitness cyclist/group riders ● 0 dots – e-bike cyclist ● 6 dots – casual through cyclist ● 4 dots – casual cyclist ● 2 dots – first/last milers ● 3 dots – family cyclist ● 1 dot – alternative wheels ● 0 dots – assisted mobility <p>Feet (4 dots in general)</p> <ul style="list-style-type: none"> ● 8 dots – jogger/runner ● 4 dots – fitness pedestrian ● 9 dots – casual pedestrian ● 1 dot – groups walking ● 2 dots – walking with strollers ● 3 dots – elderly and senior walkers ● 1 dot – visually impaired pedestrians <p>Other:</p> <ul style="list-style-type: none"> ● Please consider bicycle commuters (should be added as a category) ● This isn't Mercer Island ● How about the casual pedestrian? ● Scooter share – lime scooters ● Note no bikes belong on the roads! ● Elderly – this is a good one; putting bicyclists on the same path as the elderly; on your left ● Who is supposed to be on the left (x2)

Mercer Island Aubrey Davis Park

DRAFT October 4, 2019 | Survey #3 - Analysis

Survey Overview

The third Mercer Island Aubrey Davis Park Survey was designed to complement the third open house on September 23rd, 2019. The survey asked for targeted feedback on three design and implementation options for the park. It was passed out on comment cards at the in-person open house, and presented as an online survey. The survey was open from September 23rd to 30th, 2019. It was not a statistically valid survey.

The survey used the ESRI StoryMap platform which presents a graphic narrative with a link to survey questions at the end. The narrative contained four major sections:

- Vegetation Management
- Trail Improvements
- Amenity Improvements
- Arts and Placemaking

After learning about these parts of the Aubrey Davis Park Master Plan, open house attendees and online survey respondents were presented with three proposed actions and asked three questions to give targeted feedback on those actions. The questions were multiple choice or multiple answer to simplify and focus feedback. The three options focused on the following subject areas:

- The Ballfield Conflict Zone
- Soft-Surface Trail Alignment
- Water Conservation

All exhibits below present the combined results of the comment cards filled out at the in-person open house on September 23rd, as well as all online survey responses. There were 33 unique respondents for the online survey, and 41 comment cards received at the in-person open house. Some questions were skipped by respondents, and some questions were multiple answer, allowing respondents to choose more than one response.

BALLFIELD CONFLICT ZONE

The area immediately adjacent to Feroglia Fields in the Central Lid Park is one of the most congested areas of Aubrey Davis Park. Two design solutions are proposed to improve safety long term.

What is your preferred approach? (pick one)

1. Option 1: Multi-Modal Plaza



2. Option 2: Trail Behind Restroom



3. Option 3: Neither

Combined Results from Open House and Online Survey:

	#	%
Option 1: Multi-Modal Plaza	14	21%
Option 2: Trail Behind Restroom	41	61%
Option 3: Neither	12	18%
TOTAL:	67	

- Over 60% of respondents preferred Option 2: Trail Behind Restroom
- 21% chose the Multi-Modal Plaza option, and 18% preferred neither option.

SOFT-SURFACE TRAIL ALIGNMENT

Two soft-surface pedestrian trails are proposed to improve access and provide separation between pedestrians and cyclists.

Which proposed pedestrian paths do you like? (pick all that apply)

1. Option 1: Pedestrian path to the tennis courts



2. Option 2: Pedestrian path along trail



3. Option 3: Neither

Combined Results from Open House and Online Survey:

	#	%	
Option 1: Pedestrian Path to Tennis Courts	29	35%	
Option 2: Pedestrian Path Along Trail	39	46%	
Option 3: Neither	16	19%	
TOTAL:	84		

- Nearly half (46%) of respondents chose Option 2: Pedestrian Path Along Trail. However, there was fairly strong support for Option 1: Pedestrian Path to the Tennis Courts, with 35% of respondents choosing that option.
- 19% responded that they did not prefer either option.
- This question was multiple answer question, allowing respondents to pick more than one answer.

WATER CONSERVATION

Water use currently accounts for almost one third of the park's total operating expenditures. Below are three alternatives to consider for reducing annual water usage and cost in selected areas.

What is your preferred water conservation approach? (pick one)

1. Option 1: Brown out open lawn areas (non-athletic) in summer

- Low cost, low water usage
- Low maintenance
- Low habitat value



2. Option 2: Install lower maintenance meadows

- Medium cost, some initial water usage
- Moderate maintenance
- High habitat value



3. Option 3: Keep watering existing lawn areas (current practice)

- High cost, high water usage
- Higher maintenance, higher performance
- Low habitat value



Combined Results from Open House and Online Survey:

	#	%
Option 1: Brown out open lawn areas in Summer	22	29%
Option 2: Install lower maintenance meadows	36	47%
Option 3: Keep watering existing lawn areas	19	25%
TOTAL:	77	

- Nearly half (47%) of respondents preferred Option 2: Install lower maintenance meadows.
- 29% of respondents preferred Option 1: Brown out open lawn areas (non-athletic) in summer, while one quarter (25%) preferred the current practice of watering existing lawn areas.

Open House #3 | MEETING NOTES

September 23, 2019

Each participant at the Open House received a survey card and three sticky dots when they signed in. They were encouraged to put the dots on their top three favorite projects. They were also encouraged to write any comments they had on sticky notes and place them on the 11 boards that encircled the room.

Plan Area	Notes
Process to Date Board	<p>Pop-Up Survey</p> <ul style="list-style-type: none">● 6 dots indicate the top activities include walking or biking on the trail and enjoying the landscape and scenery● 2 dots indicate the guiding principles for the master planning process are to reduce conflicts between trail users and other pedestrians and to improve existing amenities <p>Open House #1 Survey</p> <ul style="list-style-type: none">● 12 dots on retaining the natural park character● 3 dots on allowing for a variety of trail experiences
Planting Character Board	<p>Planting Character – Northwest Feel</p> <ul style="list-style-type: none">● 2 dots on Northwest feel (ferns)● “No ivy, plus you can see, there is a lot of weeding involved. You don’t have the money! And no more ivy”● “Like northwest feel, but low on water usage. Like browning out open lawns (non-athletic areas)” <p>Planting Character - Ornamental</p> <ul style="list-style-type: none">● 5 dots on ornamental feel (2 on purple flowers, 3 on groomed lawn/garden)● On ornamental: “this is just too much foo foo, less is better.” <p>Planting Character - Sensory</p> <ul style="list-style-type: none">● 3 dots on sensory (wind-chime picture)● “Who has the time to maintain these gardens? Give details.” <p>Water Conservation Options</p> <p>Option 1: Brown out open lawn areas in summer</p> <ul style="list-style-type: none">● One dot● “No brown in high visual areas.”

	<p>Option 2: Lower maintenance meadows</p> <ul style="list-style-type: none"> ● 4 dots ● "I have no problem with plain old grass."
Trail Improvements	<p>Ballfield Conflict Zone</p> <p>Option 1: Multi-Modal Plaza</p> <ul style="list-style-type: none"> ● 3 dots on traffic calming measures ● 3 dots on ghost sketch ● "Every time you want to widen the path and add gravel, trees need to be removed. Please leave natural." ● "Bad – as walkers walk across trail, great danger to all users" ● "Like traffic calming element" <p>Option 2: Trail Behind Restroom</p> <ul style="list-style-type: none"> ● 12 dots on Option 2 ● Drawing: signage indicating bus vs walk paths ● "Separate pedestrian trail is great! Soft shoulder is important for runners knees, not just peds." ● "Traffic circle is great! But here (arrow pointing at path behind bathroom) bikes will take the shortest path rendering the bike detour useless. Slow their speeds down. Widen the trail to 14' standard though." <p>Soft Surface Trails</p> <ul style="list-style-type: none"> ● 3 dots total: 2 on connection to tennis courts, 1 on pedestrian path along trail ● "Make new pedestrian path paved!" ● "No disabled person has complained about the paths." ● "Neither. Don't like either. This has been talked about a lot. It is like they are not listening to us." <p>General Comments</p> <ul style="list-style-type: none"> ● "Please put your efforts into removing all the ivy first. Then come in with making the area look nice." ● "Not removing the ivy. A large section fell down, that could have killed someone!" ● "Remember you have no money! You need to look at the maintenance cost instead of coming up with projects" ● "Regional best practices and soon-to-be adopted national trail standards underscore that 14' trails give all users room to safely navigate. That's 14 paved feet, plus soft shoulders!" ● "Please just leave as is, just remove the ivy please. Adding plants just leads to more

	work for staff. They have enough work to do as is."
Preferred Trail Improvements: West Half	<p>(A) W Mercer Way Crossing</p> <ul style="list-style-type: none"> ● One dot (existing crossing improvements) ● Pointing at intersection near ramp and existing parking - "needs pedestrian safety" and "Encourage alternate routes with wayfinding." ● "High visibility bollards needed throughout the city" <p>(B) ADA Access to Playground and Basketball Courts</p> <ul style="list-style-type: none"> ● One dot ● "All islanders pay for the park. All islanders should have access." (one dot) ● "Too expensive" <p>(C) ADA Access to tennis Courts and Proposed Off-Leash Area</p> <ul style="list-style-type: none"> ● One dot ● "Unnecessary. Use trail to east." <p>Optional – Soft Surface Trail Connection</p> <ul style="list-style-type: none"> ● One dot ● "Separating bikes from walkers is a great idea" (one dot) <p>(E) Restroom Conflict Zone</p> <ul style="list-style-type: none"> ● One dot ● "Should relocate trail behind restroom – Separation is a great tool to mitigate and prevent user conflicts." ● "Make sure Wash DOT can provide transit for bikes and peds re-order priorities. Ped – Bike – Car." ● "Relocate bike trail behind and west of bathrooms, limit bike-walker interaction. That section is 'fast' downhill for bikes - move them off current trail." <p>(H) Town Center</p> <ul style="list-style-type: none"> ● "Ped safety at all intersections." ● "Make sure new round-about for sound transit is safe and user friendly for cyclists." (one dot) ● "NO ROUNDABOUT, buses will be blocking the crosswalk going W to East and blocking the roundabout going East to West" ● At 24th and 81st intersection – "Prefer stop for vehicles. 4-way stop" and "if trail, needs a lot of work for ped safety." ● At N Mercer Way and parking lot intersection "Pedestrian safety here." ● "Cyclist concern: corner of 81st and north Mercer Way, crosswalk should be painted green so cars know cyclists cross there" ● At 81st and N Mercer Way "there does not need to be any traffic calming. The bike trail should go behind to 24th St. The sidewalk cannot be widened." ● "Cannot widen here. T-Mobile have all their equipment in the side panel."

	<ul style="list-style-type: none"> ● "Need to widen Island Crest Way between N Mercer Way and 28th St. How about a Lid?" <p>(F) Stair Connection & ADA Path from Luther Lid to N Mercer Way</p> <p>(G) Stair Connection & Path from Upper Luther Lid to 84th Ave SE</p> <ul style="list-style-type: none"> ● "F&G are needed together to finally reconnect Luther Burbank's split halves." ● "Important to have safety features that SLOW bikes down on shared use trails" (one dot) ● "Add connection between MICA and crossing Island Crest to Luther Burbank Lid." ● "Need this trail from Luther Lid to Luther Burbank Park. High Priority!" (one dot) ● "Island Crest Way and North Mercer Way intersection is very dangerous. Need stop sign vs yield sign." (one dot)
Preferred Trail Improvements: East Half	<p>(G) Stair Connection & Path from Upper Luther Lid to 84th Ave SE</p> <ul style="list-style-type: none"> ● 6 dots ● "Very excited about the stairs from 84th to Upper Luther Lid." <p>(K) Upper Luther Ravine Trail</p> <ul style="list-style-type: none"> ● 5 dots ● "Love the Upper Luther trail – allows a trail from town center to City Hall" ● "The look of grass on either side of the trail is nice. And please think of the trees before you look at each project." ● "Please remove the gravel. It is a mess of adding to the danger. Plus it causes a lot of work for staff to maintain." ● "K would connect the existing trail from 36th to Shorewood to 84th." <p>General</p> <ul style="list-style-type: none"> ● "Where the trail crossed Shorewood Dr. east bound – the sight line for cyclists is poor and cars are descending Shorewood Drive. Not good." ● "Existing Ped trail show potential for connectivity" ● "East segment – Pedestrians and slow cyclists on path. Faster bikes on NMW. Please encourage this." ● "G. I like the connection from 84th to the lid. K. Also the connection to Shorewood" ● "Please build the trail to national standards! Not thinner" ● "East end of trail is too narrow. Electric bikes popularity will overwhelm this sections capacity in a few years. It's tight now with bikes in opposite directions." ● One dot on wayfinding, ADA access, and/or traffic calming for 100th Avenue intersection

<p>Preferred Trail Improvements: General</p>	<p>General</p> <ul style="list-style-type: none"> ● "Vegetation on water side of wall off W Mercer Way has never been maintained" ● "Force cyclists to use 24th to 81st to avoid high speed conflicts in front of park and ride" ● "As cyclist – I ride on N Mercer Way." ● One dot for traffic calming measures ● One dot for bollards ● "No new bollards." ● "Alternatives help so ex. width OK." ● "To allow future use, trail width should right size trail width 14' national best practice." (One dot) ● "Yup! Heavy congestion and tight path here! Please adhere to the 14' Standard!" ● Along I-90 "More width here GOOD cyclists fast on E end so not comfortable as pedestrian" ● "Ideally, make space for pedestrians! Leave space for trail expansion one day! Don't plant trees too close to trail, and leave right of way." ● "I support the widest trails possible and consistent with best design standards for multi-mode use." (3 dots) ● "Consider separate trails for wheels and peds (like and Myrtle Edwards Park) 2 surfaces, separated." ● "If bike trail doesn't work for faster commuters and slower recreational users, fewer people will use it and multi-modal option for reducing carbon won't work." <p>Trail Through East Half Section</p> <ul style="list-style-type: none"> ● "Use colored stripes to separate wheels from ped areas (fast vs slow) trail" ● "Want 14' with 2' hard pack buffer. No loose gravel – dangerous." ● "Adopt new ASHTO 14 ft wide trail – wider better for all transportation modes" (4 dots) ● "Separate bikes and pedestrian (unpredictable, do not respond to bells)" ● "This is a heavily used trail! 14' paved trail is safer now and into the future. Let's plan now for growth so that in 2023 when light rail opens we're not hurting ☺"
<p>Preferred Park Improvements: West Half</p>	<p>General</p> <ul style="list-style-type: none"> ● At western end of Lid Park "Need restroom in this area" and "Put restroom across the street by parking lot" <p>(B) New Restroom Building</p> <ul style="list-style-type: none"> ● 4 dots <p>(E) Dog Off-Leash Area</p> <ul style="list-style-type: none"> ● One dot ● "Dog parks also kills grass."

	<ul style="list-style-type: none"> ● “Dog owners are very good at self-management of their dogs in the park wonderful to have open access to the park makes it so inviting.” ● “Don’t fence this in.” (one dot) ● “Dogs off leash can be scary if in park areas and mobility impaired for others.” ● “Bad area for a dog park.” ● “It will be disused if you fence off. It would change the feel.” ● “How do you enforce off-leash vs on leash areas?” <p>(F) ADA Seating and Access</p> <ul style="list-style-type: none"> ● 2 dots for ADA seating and access to playground – one dot at each proposed location <p>(H) Future Commuter Parking</p> <ul style="list-style-type: none"> ● One dot ● “No parking here!” ● “This is not even a part of the Aubrey Davis Trail.” ● “Bad idea to pave this.” ● “I agree, very bad idea to pave this.” ● “Please clean up the contamination and leave the grass. Why did you put this in here?”
Preferred Park Improvements: East Half	<p>General</p> <ul style="list-style-type: none"> ● On shoreline restoration “Please don’t start interfering. The next minute, you will want to develop it. Thanks.” (one dot) ● “Is it possible to create a pedestrian path on the south-side of I-90 from NMW to the TC?” ● “Please consider adding a crosswalk (ideally with flashing lights” to help pedestrians cross SE 36th at N. Mercer Way.” <p>(K) Improved Shoreline Access</p> <ul style="list-style-type: none"> ● One dot
Place-making Opportunities	<p>General</p> <ul style="list-style-type: none"> ● One dot on the draft vision ● One dot on cultivate an art-inspired environment of the core tenets. ● In town center area “Make a notable gateway space with iconic artwork!” ● “Art for pedestrian safety” ● In town center “Would like this section under a lid” ● “Make art experiences congruent to specific differences in location of park” <p>● Interactive art installations - 6 dots</p>

	<ul style="list-style-type: none"> ● Community connection through art inspired spaces – 3 dots ● Engage with the outdoors - 2 dots ● Explore and discover - 2 dots ● Different experiences and different seasons - 2 dots ● Create ambience an accessibility - 1 dot
Vegetation Management	<ul style="list-style-type: none"> ● Intensive soil amendment and replanting – 1 (one) dot ● Infill planting areas - 3 dots <p>General</p> <ul style="list-style-type: none"> ● “Meadows on the lid” towards Luther Burbank Park ● “If it looks like the meadow along 86th Ave. in Luther Burbank then no meadow. Think of the maintenance.” ● “Not infill at IC Way” ● “Keep green” (agree) at IC Way ● “Like blue areas to also block views to freeway” ● “Need to reduce bunny habitat” ● “Like benches and seating along trail” ● “Like all the conservation measures” ● “Trim and lower trees to improve better views west toward Olympic Mountains and East to Cascade snow-capped mountains” ● “Like having hillside green to sit on” (agree) on west side of West Mercer Way ● “Green at picnic areas” (agree) on east side of West Mercer Way ● “Green-space important at this intersection” near town-center ● “Keep green” (agree) at town-center intersection ● One dot on lawn at East Mercer St and I-90 ● “Ok with alternative here” at East Mercer St and I-90
Comment Cards	<p>Responses Received: 41</p> <p>Question 1: Ballfield Conflict Zone preferred approach</p> <ul style="list-style-type: none"> ● Option 1 (Multimodal Plaza): 6 votes ● Option 2 (Trail behind restroom): 26 votes ● Neither: 5 votes <p>Question 2: Soft Surface Trail Alignment</p> <ul style="list-style-type: none"> ● Option 1 (Pedestrian path to tennis courts): 17 votes ● Option 2 (Pedestrian Path along trail): 25 votes ● Neither: 6 votes

Question 3: Water Conservation preferred approach

- Option 1 (Brown out open areas): 13 votes
- Option 2 (Lower Maintenance Meadows): 21 votes
- Option 3 (Keep existing lawn): 10

Additional Comments:

- Multi-modal plaza “with bike-calming”
 - “Separate areas to help with congestion,” and “safer to separate users. Walk vs. ride.” for trail behind restroom
 - “ADA soft surface” for path to tennis courts
 - “Switchbacks encourage shortcuts” re: pedestrian path to tennis courts
 - Meadow “but not near Island Crest Way”
 - Meadow is “attractive with native vegetation and no on-going water needed”
 - “Mix [of meadow and lawn] – keep areas green”
 - Lawn “at Island Crest Way”
-