



MacKay  Sposito

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PACIFICORP

Speelyai Park Day-Use
Parking Feasibility Study

Technical Memorandum

September 25, 2020

Speelyai Park Day-Use Parking Feasibility Study

Technical Memorandum

August 2020

Project Purpose and Background

Introduction

PacifiCorp (Company) operates Speelyai Park, located on Merwin Reservoir near the town of Ariel in Cowlitz County, WA. The establishment and operation of the park is a requirement of the Federal Energy Regulatory Commission (FERC) license for the Merwin Hydroelectric Project (FERC Project No. 935). Furthermore, the license identifies certain improvements for parks and facilities along Merwin Reservoir.

The purpose of this feasibility study is to evaluate the most practical and feasible location and configuration to develop additional overflow boat trailer parking and a pedestrian access trail from the proposed parking to the Speelyai Park and Boat Launch Facility. The goal of this evaluation is to be consistent and compliant with the FERC license for the Merwin Hydroelectric Project, the Lewis River Settlement Agreement (SA), Recreational Facilities Master Plan (RFMP), and other established project management plans ensuring that PacifiCorp continues to meet objectives associated with environmental and habitat protection, and the continued public enjoyment of PacifiCorp facilities.

Regulatory Requirements and Agreements & Site Selection

The Lewis River Hydroelectric System consists of four coordinated projects that are operated under licenses from the FERC. PacifiCorp owns Swift No.1 (FERC No.2111), Yale (FERC No. 2071) and Merwin (FERC No. 935). The Public Utility District No.1 of Cowlitz County, Washington (Cowlitz PUD) owns the Swift No. 2 Project (FERC No. 2213) which lies between Swift No. 1 and Yale.

Per requirements of the licenses, PacifiCorp is to undertake or fund facility additions, upgrades and maintenance actions, working with neighboring landowners when appropriate, to provide for a diversity of recreation opportunities in the project area. As a result, the company prepared a Recreational Resource Management Plan (RRMP, April 2004) under the authority of Title 18 Code of Federal Regulations 4.51 (f) (5), which identifies the need to define the responsibilities of parties when public recreation facilities are to be provided at a hydroelectric project. They utilize this RRMP to manage existing and future recreation resources associated with the project. Pursuant to the Merwin FERC license Article 408 and Lewis River Settlement Agreement Section 11.2.3.11, PacifiCorp, for the Speelyai Park, is to “evaluate the feasibility of providing additional parking under the nearby Project transmission lines with trail access to the boat launch”. During the development of the Lewis River Recreational Facilities Master Plan (RFMP, Dec. 2009), the existing conditions of the area were evaluated and it was suggested that due to the unstable, steep slopes of the potential connector trail, the flat area along the Speelyai Park access road should be considered.

All 3 parking lot option locations identified and evaluated within this feasibility study, as guided by the language of the SA and the RFMP, are located within PacifiCorp’s Wildlife Habitat Management Plan (WHMP) lands. The purpose of WHMP lands, per SA 10.8 “shall be to benefit a broad range of fish, wildlife, and native plant species, including but not limited to, large and small game, amphibians, bats, forest raptors, neo-tropical birds, and culturally significant native plants”. The management decisions undertaken on WHMP lands to accomplish these wildlife objectives are coordinated with and overseen by the Terrestrial Coordination Committee (TCC), per SA 1.7. The TCC is comprised of stakeholders and representatives from various environmental oversight agencies. In order to complete any recreation related development on WHMP lands, PacifiCorp must first consult with the TCC to determine if mitigation is needed, per SA 10.8.5.5.

Design Criteria

The main criteria by which the alternatives were evaluated consist of:

- » Functionality
- » Safety and Security
- » Maintenance
- » Cost
- » Accessibility
- » Environmental impacts
- » Constructability
- » Permitting Requirements

Process

The process followed to complete this feasibility study consisted of the following steps:

- » Kick-off Meeting / Site Reconnaissance and Data Collection
 - Identify and map potential parking lot location and connecting route alternatives
 - Establish and prioritize design criteria by which to assess each alternative
- » Inventory and Analysis
 - Synthesize the information gathered and analyze it against the design criteria
 - Identify potential opportunities and constraints of each alternative
- » Client Review Meeting
 - Review Inventory/Analysis and Design Criteria with the client and obtain feedback and direction for moving forward with conceptual site plans
- » Draft Conceptual Site Plans
 - Prepare initial concepts for each alternative to review with the client.
 - Summarize the pros and cons of each concept.
 - Complete a technical memorandum that identifies Natural Resource Permitting Requirements that may need to be completed for the alternatives.
- » Client Review Meeting
 - Review the draft concept plans with the client and obtain feedback and direction for developing the preferred final concept.
 - Receive feedback from client following the Terrestrial Coordination Committee meeting.
- » Final Conceptual Site Plan
 - Prepare the final preferred concept plan based on client feedback.
 - Prepare a preliminary budget estimate for construction and permitting the final concept
- » Feasibility Study
 - Prepare a written summary describing the process, results and recommendations leading to the final concept site plan.



Project Kick-off and Site Reconnaissance

December 12, 2019 a project kick-off meeting and site reconnaissance visit was conducted on site and included the following attendees:

<i>PacifiCorp</i>	Jessica Kimmick – Senior Environmental Analyst, Recreation and Cultural Resources
<i>MacKay Sposito</i>	Emily Mills – Landscape Architect Jim Sandlin – Landscape Architect, Project Manager
<i>Mason, Bruce & Girard</i>	Jesse Roper – Biologist/CESCL/Environmental Inspector

DNR LIDAR generated base mapping with a registered aerial photograph were provided by PacifiCorp to serve as the site base for the feasibility study and subsequent inventory/analysis and conceptual design alternatives contained in this study.

During the site reconnaissance visit, 3 potential parking lot locations were identified within the nearby Transmission corridor and the Speelyai Park access road, along with 5 potential pedestrian access routes/trails to be analyzed. These were identified in the field using a combination of GPS point collection with a hand held device that were later imported into the LIDAR base mapping, along with supporting field sketches, notes and photographs.

Among the established design criteria and considerations identified within the scope of work provided by PacifiCorp and supplemented during discussions with Jessica Kimmick during the kick-off meeting and follow-up conversations are as follows:

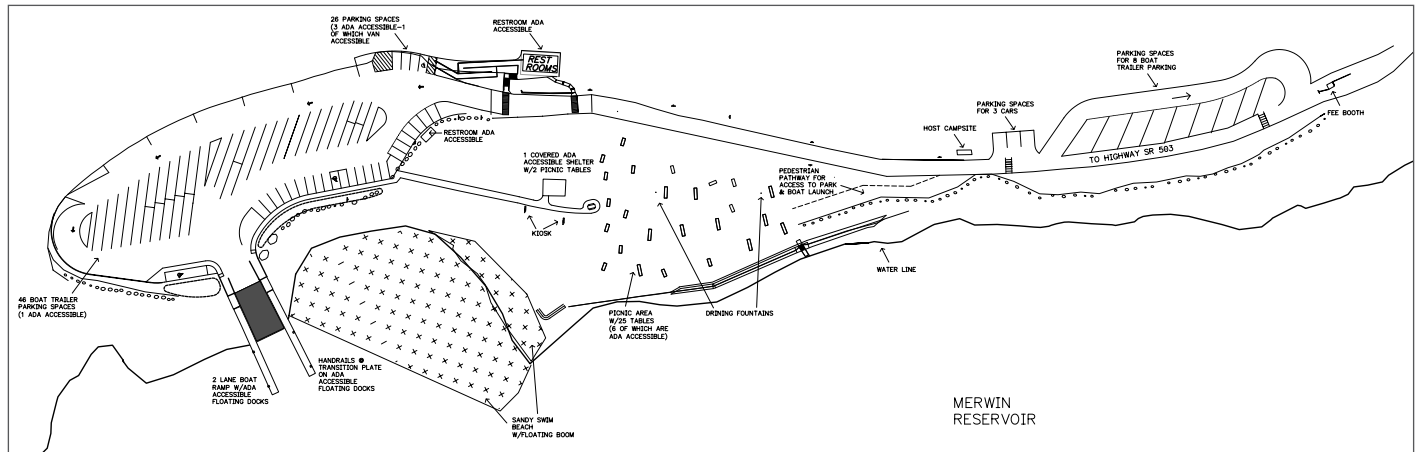
- » Minimize impacts to significant natural resources (vegetation, wildlife habitat, wetland impacts, view corridors)
- » Minimize impacts to the Wildlife Habitat Management Plan (WHMP) lands to in turn minimize potential environmental mitigation requirements and concerns by the TCC.
- » Look for opportunities and methodologies to control ATV and other undesignated motorized access and impacts
- » Evaluate constructability (slopes, grading, stormwater, construction access, costs of construction)
- » Address wayfinding (accessibility, visibility, physical distance between destinations)
- » Consider transmission line security and maintenance (restrict accessibility, ability to monitor, safety, maintenance access)
- » Public safety and security is a priority (lighting, visibility, vandalism, risk management, pedestrian vs. vehicular conflicts)
- » Identify permit requirements
- » Connect/link to quarry area overflow parking lot currently under design and construction along Speelyai Recreation Road, north of the main park area if practical.



Conceptual Site Plan Options

Based on review of the Inventory and Analysis and Design Criteria with the client, we prepared conceptual site plans for each of the 3 parking lot options and 5 of the trail connections associate with them. Each option was evaluated based on how it addresses the established design criteria and identifies the inherent pros and cons it has to offer. The overall combined options for both parking and trail options are depicted on Figure 1: Overall Site Plan Options. Enlarged site plans are also provided for each of the parking lot options as referenced below.

Note: With the exception of Trail Option E (see Figure 1) all remaining Trail Options leading from Parking Lot Options A, B, and C will terminate at the upper quarry area overflow lot , completed in April 2020. At that point the trail options will connect to the existing pathway that provides the remaining access to the boat launch/picnic area.



As-built Quarry Parking Lot Plan



Pathway from Quarry Parking Lot to Boat Launch/Picnic Area



Quarry Overflow Parking Lot



Parking Lot Option A

Parking Lot Option A (see Figure 2) is located within the transmission line corridor between two sets of power poles. The area is relatively flat and open requiring little grading and tree removal. The vehicular access to the lot consists of an existing access that connects the transmission maintenance access corridor, WHMP management lands, and Thurman Road. The layout is designed for 25 pull-through truck and boat trailer stalls and 2 standard vehicular stalls. It is surrounded by a 2-way loop access aisle which is defined by strategically placed boulders. In order to restrict public access further down PacifiCorp 650 road, this option would require a lockable gate.



Transmission Line Corridor



Maintenance Access Drive Gate

Pros

- » The area is already disturbed by transmission line corridor
- » Relatively wide open flat areas with little vegetation removal required.
- » Slightly shorter distance to boat launch than Parking Lot Option B

Cons

- » Safety/Security risks due to low visibility and ability to monitor. Increased likelihood of vehicle break-ins and vandalism including off-road vehicle access.
- » Entry access wayfinding is less obvious from the Speelyai Bay Park access road and thus more confusing for users to locate and take advantage of overflow parking.
- » May result in easier ATV and other undesigned motorized access.
- » Potential concerns raised during a TCC review of the concept indicated that the proposed location may result in disruption of hunting activities on WHMP lands located in this vicinity.
- » Potential concern regarding the provision of public access to a transmission line corridor and resulting safety and security issues. Consultation to address public access concerns, and parking lot design and construction with PacifiCorp's Transmission and Distribution Department would be required prior to moving forward.

Note: See Trail Options D and E for pedestrian access alternatives to accommodate this parking lot option.



Parking Lot Option B

Parking lot is located closer to Speelyai Recreation Road making it somewhat more visible and notifying drivers that there is additional parking available as they drive toward the boat launch. Visibility is greater than Option A and should result in easier monitoring and less susceptibility to vehicle break-ins. The area is relatively flat and open requiring little grading and tree removal. The layout is designed for 28 head-in or back-in truck and boat trailer stalls and 4 standard vehicular stalls. The access aisle is 2-way with opportunities to turn around at either end. The lot is designed to avoid power poles and the space is defined through the use of strategically placed boulders.

Two options for vehicular access to the parking lot were studied. Parking Lot Option B1 (see Figure 3) can utilize the existing PacifiCorp 650 road that connects to Thurman Road, similarly to the access shown in Parking Lot Option A. It can utilize a new entry drive at the east end of the parking lot that ties directly into Speelyai Bay Park access road. Or it can use both the existing PacifiCorp 650 and the new entry drive. Parking Lot Option B2 (see Figure 4) utilizes the existing PacifiCorp 650 road that connects to Thurman Road, similarly to the access shown in Parking Lot Option A.



Transmission Corridor

Pros

- » Visible from Thurman Road, thus easier to monitor.
- » If Option B2 is implemented it provides easier access and wayfinding for vehicles.
- » The area is already disturbed by transmission line corridor
- » Relatively wide open flat areas with little vegetation removal required.
- » Parking Lot Option B provides the largest number of parking stalls.

Cons

- » For Option B1 the entry access wayfinding is less obvious from the Speelyai Bay Park access road and thus more confusing for users to locate and take advantage of overflow parking.
- » Option B2 results in potential higher cost for new access drive construction.
- » This Parking Lot Option B is the furthest distance from the boat launch.
- » Potential concerns raised during a TCC review of the concept indicated that the proposed location may result in disruption of hunting activities on WHMP lands located in this vicinity.
- » Potential concern regarding the provision of public access to a transmission line corridor and resulting safety and security issues. Consultation to address public access concerns, and parking lot design and construction with PacifiCorp's Transmission and Distribution Department would be required prior to moving forward.

Note: See Trail Options A and B for pedestrian access alternatives to accommodate this parking lot option.



Parking Lot Option C

Parking Lot Option C (see Figure 5) is located adjacent to Speelyai Bay Park access road and is located closest to the main park and boat launch. It is highly visible from the park access road and is located within the park entrance gate, thereby, making it the easiest option to monitor, least susceptible to break-ins and vandalism and the best option for wayfinding. The majority of the area is relatively flat; however, it will require some grading into the adjacent steep slopes to accommodate adequate depth for parking stalls. The layout is designed for 26 head-in or back-in truck and boat trailers, but approximately 5 additional stalls could be added to the south end of the lot with additional grading and drainage. The parking stalls are accessed directly from Speelyai Bay Park access road, thereby eliminating the need for a separate access aisle to be constructed. There is a turnaround at the north end of the lot that is defined by strategically placed boulders. Parking stall angles and spaces are defined with logs.

Pros

- » Anticipated lowest construction cost option based on proposed size and easy construction access.
- » Highly visible from the road and easiest option to monitor and for wayfinding.
- » Closest distance to boat launch (approximately half overall distance of Options A or B)
- » Easy access for vehicles.
- » Smallest physical footprint of disturbance of all three Options.
- » Easiest access for pedestrians of all three Options.
- » Hunting is not available in this location due to its proximity to the park, therefore Option C would not displace a current public use.

Cons

- » Possible mitigation requirements (needs further environmental investigation and study)
- » Limited capacity for future expansion

Note: See Trail Options C for pedestrian access alternative to accommodate this parking lot option.

Trail Option A

Trail Option A provides access to either Parking Lot Option A or B. Trail will traverse down slope near the parking area for about 175' and then continue along the shoulder of Speelyai Bay Park access road. Due to steep slopes along the beginning of the trail that are typically between 1:1 and 2:1, the trail will require a combination of stabilization and structural measures consisting of retaining walls and stairs. Shoulder width will need to be confirmed to ensure feasibility, the trail may need to alternate from one side of the road to the other depending on shoulder width and conditions. A log divider and/or boulders may be needed to provide a barrier between the trail and the road.

Pros

- » Slightly shorter route than Option B Trail
- » Takes advantage of areas that are already disturbed to accommodate the existing Speelyai Bay Park access road.
- » Relatively flat trail alignment with exception of short run of stairs near parking lot.
- » Trail alignment is highly visible with easy wayfinding.



Cons

- » Over $\frac{1}{2}$ mile walking distance from boat launch to parking.
- » Construction of stairs and retaining walls result in increased construction and maintenance costs.
- » May need road crossings and drain culverts depending on condition/width of shoulders and drainage ways.
- » Potential for vehicular / pedestrian conflicts are higher along the road than a trail in a separate corridor.

Trail Option B

Trail Option B provides access to Parking Lot Option B. Trail alignment runs along Thurman Road and Speelyai Bay Park access road for the entire stretch. Shoulder width will need to be confirmed to ensure feasibility, the trail may need to alternate from one side of the road to the other depending on shoulder width and conditions. A log divider and/or boulders can be used to provide a barrier between the trail and the road.

Pros

- » Anticipated to have minimal additional disturbance required.
- » Relatively flat trail alignment will be less strenuous to walk.
- » Trail alignment is highly visible with easy wayfinding.

Cons

- » Approximately $\frac{3}{4}$ mile walking distance from boat launch to parking.
- » May need road crossings and drain culverts depending on condition/width of shoulders and drainage ways.
- » Potential for vehicular / pedestrian conflicts are higher along the road than a trail in a separate corridor.

Trail Option C

Trail Option C provides access to Parking Lot Option C. Trail alignment runs along Speelyai Bay Park access road for the entire stretch. Shoulder width will need to be confirmed to ensure feasibility, the trail may need to alternate from one side of the road to the other depending on shoulder width and conditions. A log divider and/or boulders can be used to provide a barrier between the trail and the road.

Pros

- » Option with least amount of disturbance anticipated.
- » Relatively flat trail alignment will be less strenuous to walk.
- » Trail alignment is highly visible with easy wayfinding.
- » Shortest walking distance from boat launch to parking. Less than $\frac{1}{2}$ mile.
- » Anticipated to be the least expensive option based on lack of structures needed, lack of additional disturbance required and shortest trail length required.

Cons

- » Limited area for future expansion.
- » May need road crossings and drain culverts depending on condition/width of shoulders and drainage ways.
- » Potential for vehicular/pedestrian conflicts are higher along the road than a trail in a separate corridor. However, length of trail is less than other options presented.



Trail Option D

Trail Option D provides access to Parking Lot Option A. Trail will traverse down slope near existing stream/drainage for about 400' and then continue along the shoulder of Speelyai Bay Park access road. Due to steep slopes along the beginning of the trail that are typically between 1:1 and 2:1, the trail will require a combination of stabilization and structural measures consisting of retaining walls and stairs. Shoulder width will need to be confirmed to ensure feasibility, the trail may need to alternate from one side of the road to the other depending on shoulder width and conditions. A log divider and/or boulders can be used to provide a barrier between the trail and the road.

Pros

- » Stretch of trail near the stream has aesthetic interest and appeal.
- » Most of trail will not be isolated and will provide more safety due to visibility.
- » Wayfinding is easy.

Cons

- » Over $\frac{1}{2}$ mile walking distance from boat launch to parking. Portions of the alignment along steep slopes are more strenuous and less safe under low light conditions.
- » Construction of stairs and retaining walls result in increased costs.
- » May need road crossings and drain culverts depending on condition/width of shoulders and drainage ways.
- » Potential for vehicular / pedestrian conflicts are higher along the road than a trail in a separate corridor.

Trail Option E

Trail Option E provides access to Parking Lot Option A or B. Trail utilizes the PacifiCorp 650 road and will minimize improvements along the majority of the alignment. The last stretch of trail traverses down the slope above the main parking area and boat launch for about 800'. Due to steep slopes that are typically between 1:1 and 2:1, the trail will require a combination of stabilization and structural measures consisting of retaining walls and stairs.



PacifiCorp 650 Rd.

Pros

- » Alignment follows existing access drive for the majority of its length which results in lower costs excluding stairs and walls required. (TBD once cost of switchback trail and associated structures are estimated.)
- » Aesthetically pleasing route under good lighting and weather conditions.
- » Absence of vehicular / pedestrian conflicts.

Cons

- » Higher construction and maintenance costs for section of trail near main parking lot.
- » Most difficult trail option to physically navigate due to abrupt elevation change and overall length.
- » Most remote trail option and under low light conditions in the early morning and late evening the least safe of the trail options proposed.



Natural Resource Permitting Requirements

Mason, Bruce & Girard prepared a technical memorandum, based on review of the Conceptual Site Plans, which summarizes the anticipated permits required for completing the recommended site improvements. The following is taken from their memorandum Summary (see Exhibit A: Memorandum dated March 6, 2020 for complete technical memorandum):

This memorandum was based on observations from a December 12, 2020, site visit and desktop analysis of available natural resource data for the Project Area and any associated regulatory requirements. The Project Area is the outermost boundary of all parking area and trail options provided by MSI. We recommend more detailed site investigations prior to construction of the chosen parking area and trail options to corroborate the initial findings discussed in this memorandum and support preparation of permit applications.

There are no mapped hydric soils and only one NWI-mapped riverine feature within the Project Area. Regardless, the chosen parking area and trail option will likely require a USACE wetlands/waters permit (possibly NWP-42 authorization), JARPA, and HPA.

There are no critical habitats within the Project Area. However, Washington's PHS records in the area include northern spotted owl, mule and black-tailed deer, Rocky Mountain elk, and western toad. Project work may have to adhere to seasonal and daily timing restrictions to avoid impacts to northern spotted owl. If the SEPA Environmental checklist does not result in a DNS, MDNS, or a statement of exemption, then an EIS will have to be prepared. Otherwise, ESA-listed species and HPA features would be protected when the project adheres to all conditions stipulated in the approved SSDP, Critical Areas Permit, ECP, and the Excavation and Grading Permit.

Future Public Use Considerations

Park Visitation

PacifiCorp has recreation monitoring indicators and standards, which requires the company to collect use data in the Lewis River parks to assist with current and future recreation management and developing objectives that meet the needs of the public, balanced with the needs of the resource they are charged with managing.

Based on the assessment of the available park host vehicle data provided beginning 2014 through 2019 it is evident that the average use of this facility held relatively steady (less than a 15 vehicle variance) over the depicted 6-year period. The data was collected during a 3-day per week (Fri-Sun and Holidays), peak use period beginning Memorial Day weekend and ending September 15th. Although actual numbers of weeks may vary per year, for the purposes of calculating these averages, a timeframe of 16 weeks is assumed. Below is the summary for the 6-year data range:

(2014) = 100 vehicles per day
(2015) = 91 vehicles per day
(2016) = 85 vehicles per day
(2017) = 98 vehicles per day
(2018) = 87 vehicles per day
(2019) = 98 vehicles per day

In addition to the data above, based on general observations, there is a known spike in use of the facility during the Kokanee fishing season in late winter/early spring. However, data for this spike is not available for this feasibility report as it occurs during a timeframe when the park host is not on site and data is not being collected.

An in-depth recreation use data collection effort was to take place in the recreation use season of 2020, which has been deferred to 2021 due to the COVID-19 pandemic and its potential to skew use data. However, PacifiCorp is planning to expand other parks on the Lewis River in the near future to accommodate increases in use, and will continue to use these monitoring efforts to collect data and manage recreation accordingly.

Furthermore, as referenced in the Recreation Resources Management Plan (RRMP), Section 1.2 Vision for



Recreation Resources defines the long-term vision for managing the recreation resources, and specifically makes mention that there should be a balance of various resource needs and recreation, while also recognizing that not all needs can be accommodated within the project area.

Based on the existing use data reviewed, coupled with the long-term vision and objectives for the project area as described in the RRMP, it is deemed that any of the parking options described in this study would reasonably meet the anticipated future needs of the public, and in a manner balanced with the needs of the resource PacifiCorp is charged with managing.

Existing Park Restroom Capacity

In 2012, a replacement of the existing on-site septic system was prepared and implemented, as part of an overall upgrade design and construction effort for the Speelyai Bay Park Day-Use Area. Mike Williams, P.E. of Ever Green Septic Design, Inc. prepared the design calculations, drawings and specifications for the permitting and construction of the new system.

Based on the demand information provided by PacifiCorp, the system was designed to accommodate the following demands:

Total Weekly Design Flow	= 10,660 gallons
Total Monthly Design Flow	= 45,686 gallons
Peak Day Design Flow	= 2,600 gal/day (Saturday – Sunday)
Average Daily Design Flow	= 1,523 gal/day (Monday – Friday)

As a result, the system is designed for disposal of 1,600 gal/day (1.05 times the average daily design flow)

The current system was designed to accommodate the needs of users based on the proposed 2012 upgrades of the Day-Use Area and does not consider the potential increase in users resulting from either the quarry overflow parking lot or the proposed overflow parking lot options presented in this study.

Therefore, it is recommended that the system be reevaluated once the in-depth recreation use data collection effort is completed in 2021, to determine if the current capacity of the system satisfies the needs of the projected increase of users resulting from the addition of the two overflow parking areas.

If the capacity is anticipated to be exceeded, there are various options that can be considered to mitigate for the increase in use including adding a vault toilet, use of portable toilets, or possible expansion of the current septic system.

Note: Refer to “On-site Septic System Design Calculations, Drawings and Specifications dated October 31,2012 for more information.

ADA Compliance Upgrades

The original criteria established for completing this study acknowledges that it is not feasible to make any of the overflow parking lots or connecting trail options ADA compliant nor is it a requirement of the study. This is based on several constraints including topography and physical distance between the overflow parking and the boat launch/park facilities. However, as part of the design phase resulting from this feasibility study, there will be a need to evaluate the overall ratio of ADA Parking Stalls required for the site based on the ultimate number of new spaces resulting from both the new quarry overflow parking lot and the overflow lot chosen from this study. If the resultant number of new spaces trigger the need for additional ADA Parking Stalls, they will need to be incorporated into the existing day use area parking lot. This will likely result in the need to reduce the number of non-ADA spaces in that lot to accommodate additional ADA compliant spaces.

Consultation

During its annual meeting, held in October 2019, PacifiCorp notified the Lewis River Recreation Committee (LRC) that Speelyai Bay Park quarry overflow parking improvements and the feasibility study evaluating the provision of additional parking, as described in SA 11.2.3.11 were forthcoming in 2020. Upon completion of this study, PacifiCorp is required by Article 408 of the Merwin License to provide this feasibility study, drawings and project implementation schedule as a plan package to the LRC for a 30-day review and comment period. Once those comments and recommendations are received, PacifiCorp is to either incorporate those into the project plan or address reasons behind not adopting the recommendations, and file the plan package with the FERC for final approval.

During the development of this study, PacifiCorp reviewed the 3 parking location options and trail alternatives A, B, and C with the TCC in June 2020. The intent of this review was to ensure that because the location options all were located within WHMP lands, that potential mitigation for the future recreation development in these locations would be considered and approved. The TCC asked that the following be addressed in the feasibility study and the site design; wetlands delineations, environmental permitting, impacts to wildlife and hunting use, and future public use needs. Based on the information provided, the TCC agreed that Parking Option C and Trail Alternative C is preferred as it is the smallest project footprint, is the least likely to require additional septic, and is the least impactful to wildlife as the location is along the existing and publically accessible park entrance road. The TCC further agreed to keep Parking Option B-1 as a secondary location if it is found that Option C is no longer viable.

Additional consultation will be required with the TCC once the plan is approved by the FERC to determine mitigation requirements for the recreational development of the land, as this project would effectively change the primary use and management objective of the property.

Final Conceptual Site Plan

Conclusions

Based on review of the conceptual site plans and feedback obtained during the June 10, 2020 TCC meeting, the consensus of PacifiCorp and stakeholders was that Parking Lot Option C and associated Trail Option C were the preferred combined option. Based on the feedback received and per the reporting requirements within the contract, MacKay Sposito prepared the Speelyai Day Use Parking Overflow Concept plan for PacifiCorp to submit to FERC. (see Figure 6).

Per Article 408 of the Merwin license, it is expected that following review of this plan, the FERC will notify PacifiCorp of plan approval. Upon approval, PacifiCorp shall implement the plan, including any changes required by the FERC.

LEGEND

- TRAIL OPTION A
- TRAIL OPTION B
- TRAIL OPTION C
- TRAIL OPTION D
- TRAIL OPTION E
- PARKING LOT OPTION A
- PARKING LOT OPTION B
- PARKING LOT OPTION C

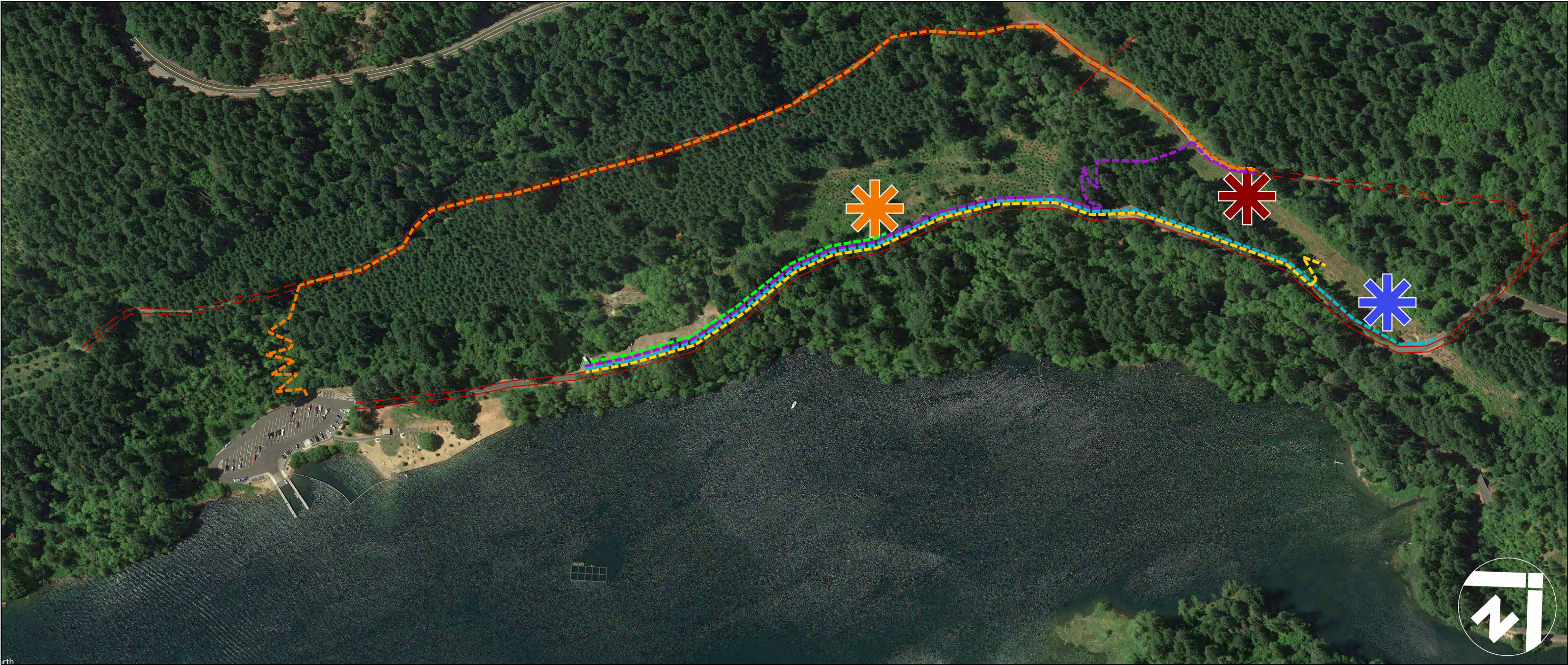
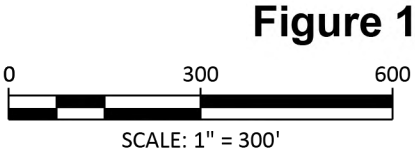
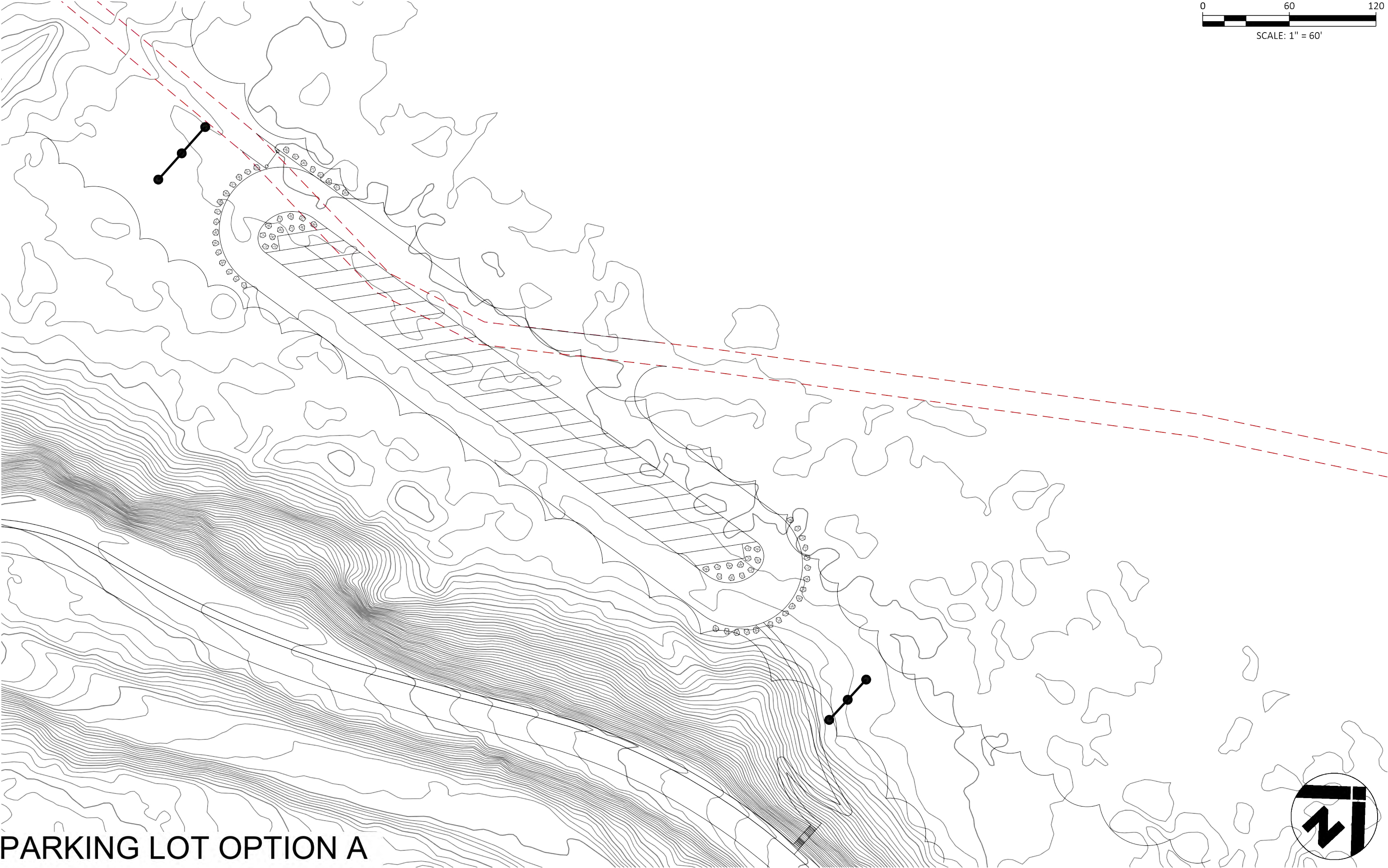
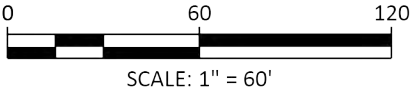


Figure 2



PARKING LOT OPTION A

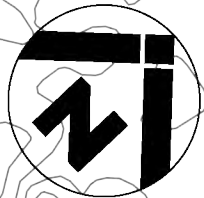
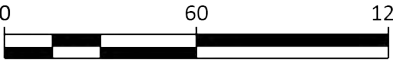
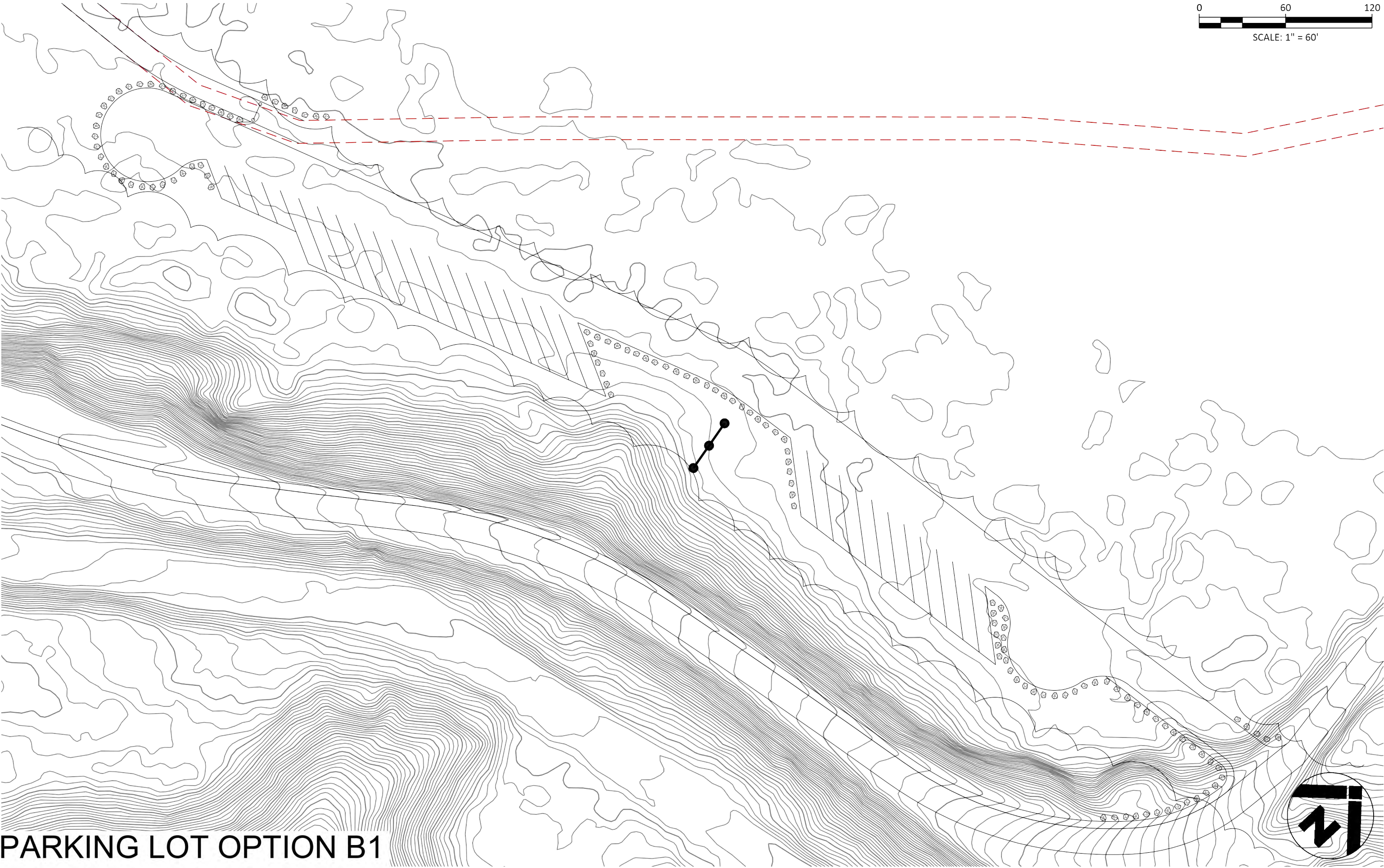


Figure 3

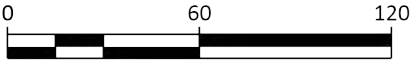


SCALE: 1" = 60'

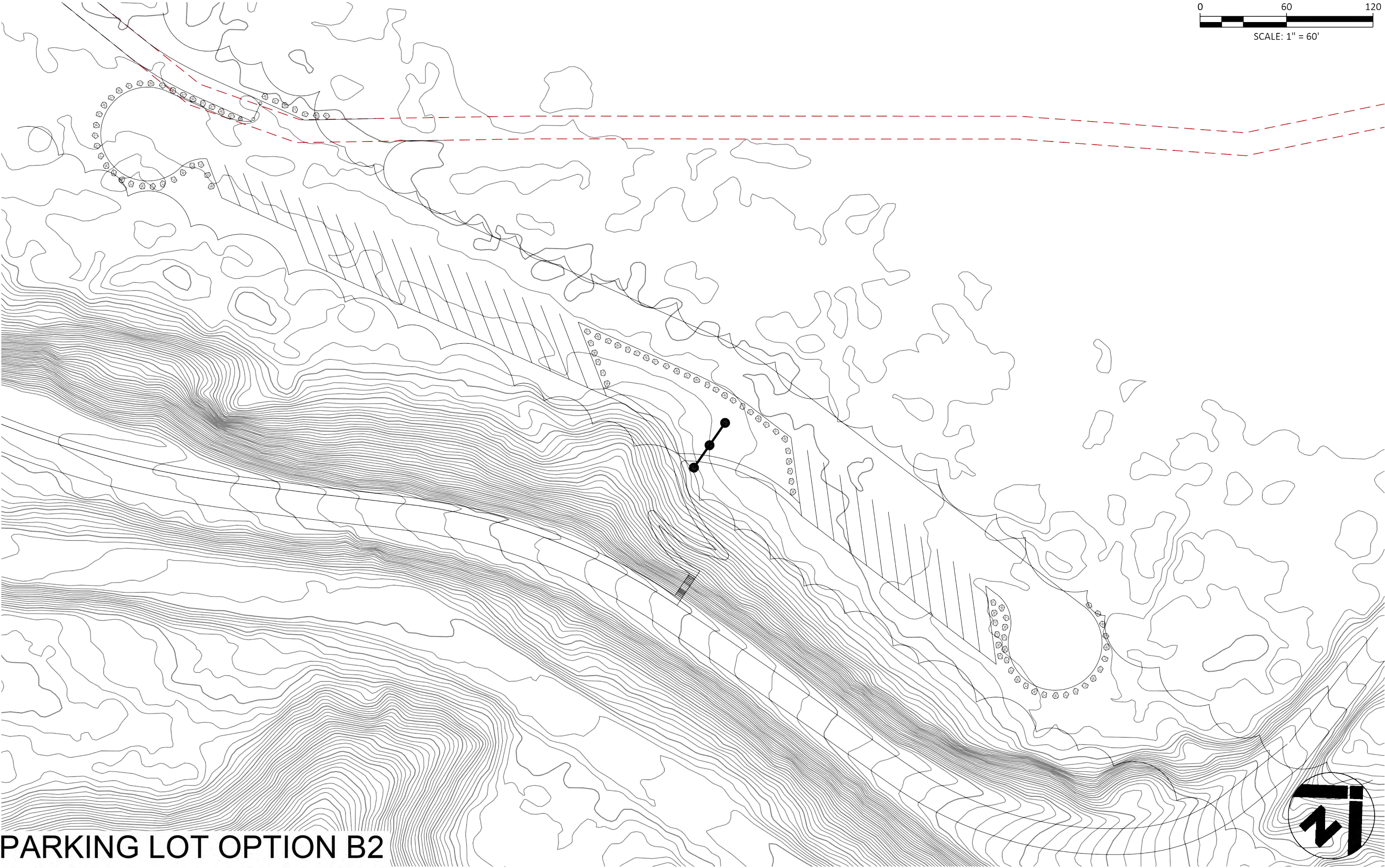


PARKING LOT OPTION B1

Figure 4

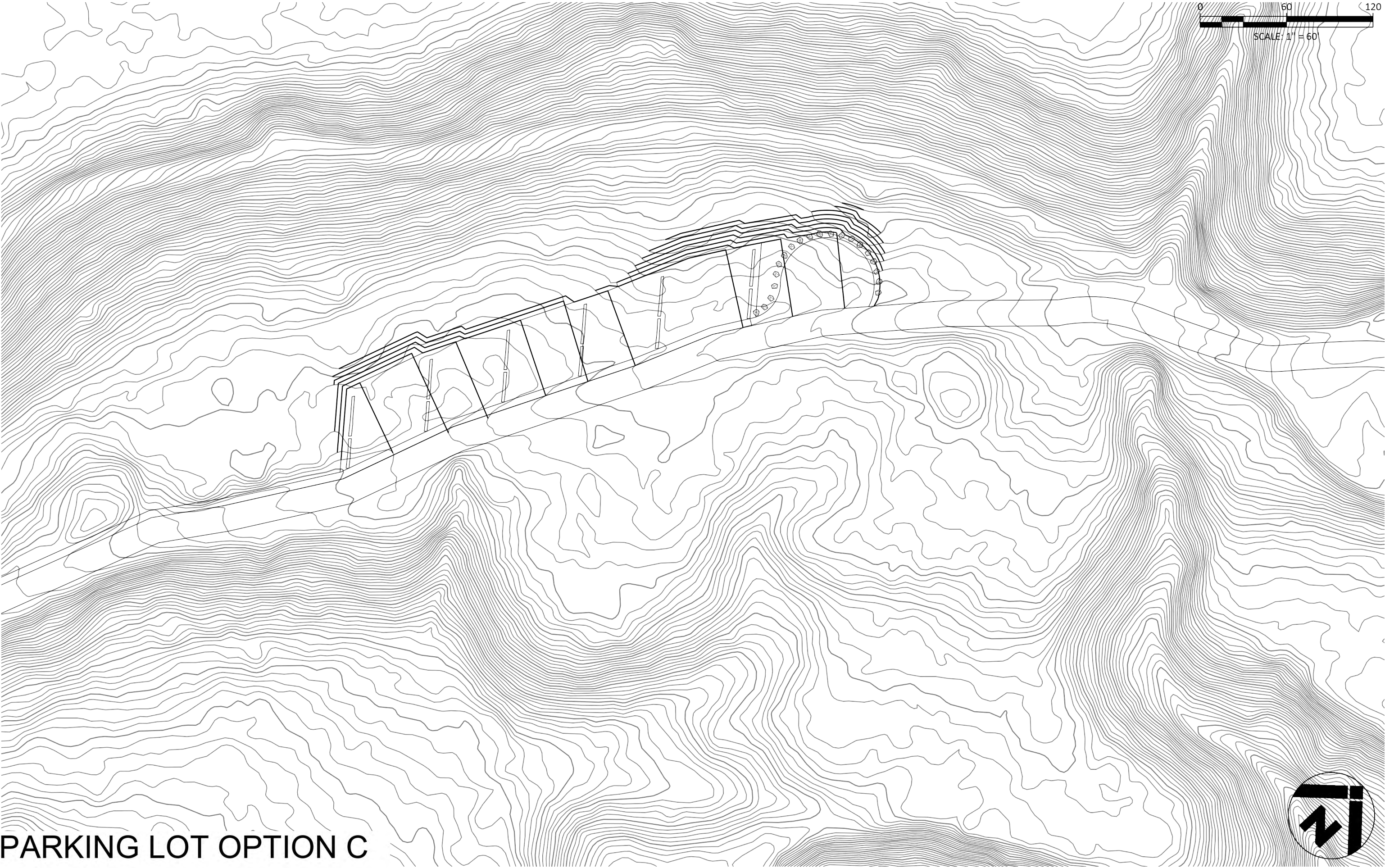


SCALE: 1" = 60'



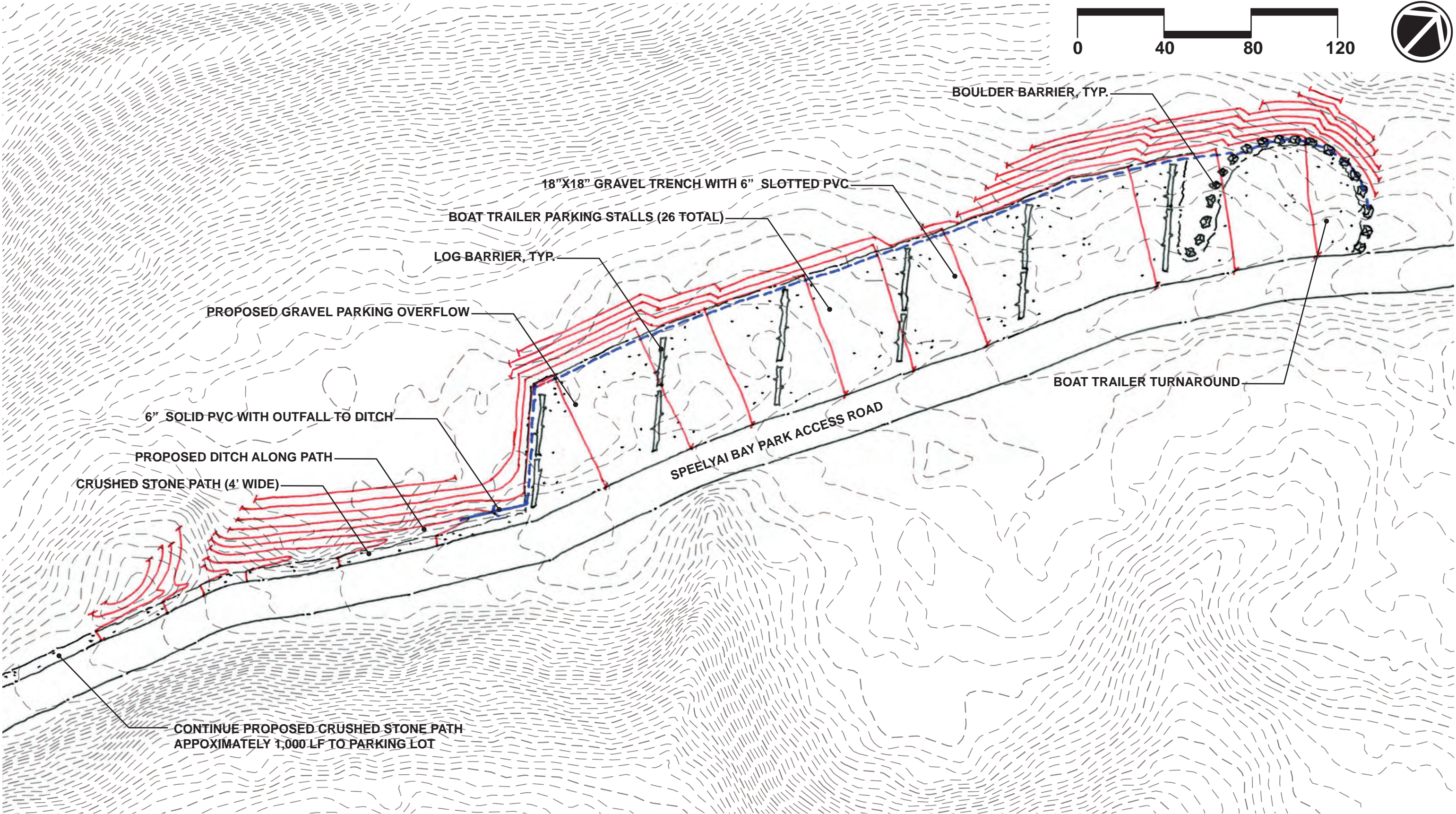
PARKING LOT OPTION B2

Figure 5



PARKING LOT OPTION C

Figure 6



SPEELYAI DAY USE PARKING OVERFLOW CONCEPT

Mason, Bruce & Girard, Inc.

707 S.W. Washington Street, Suite 1300

Portland, OR 97205-3530

MEMORANDUM

DATE: March 6, 2020
TO: Emily Mills and Jim Sandlin — MacKay Sposito, Inc.
FROM: Jesse Roper — Mason, Bruce & Girard, Inc.
SUBJECT: Natural Resource Permitting Requirements for PacifiCorp's Speelayi Bay Park Day-Use Parking Feasibility Study

INTRODUCTION

PacifiCorp owns and manages Speelayi Bay Park in Cowlitz County, Washington, and is evaluating the feasibility of providing additional parking capacity under transmission lines with trail access to the park's boat launch. This work is required per Section 11.2.3.11 of the Lewis River Settlement Agreement between PacifiCorp and the Federal Energy Regulatory Commission. This memorandum summarizes environmental permits and clearances applicable to two trail alignment options and three additional parking area options (collectively referred to as the Project Area). See Attachment 1 at the end of this memorandum for a map of the project area.

METHODS

MacKay Sposito, Inc. (MSI) developed approximate footprints for each of the trail and parking area options based on field observations and analysis of local topography. MB&G completed a desktop review of available natural resource information for the Speelayi Bay Park area to provide a preliminary understanding of potential regulatory permitting requirements for each of the trail and parking area options. The following natural resource data were collected and analyzed to inform this evaluation:

- National Marine Fisheries Service. 2020. Critical habitat GIS data for west coast salmon and steelhead. Portland, Oregon.
- National Oceanic and Atmospheric Administration, and Washington Department of Ecology. 2011. Modeled wetlands inventory map for Western Washington. Accessed March 5, 2020, from <https://ecology.wa.gov/Water-Shorelines/Wetlands/Tools-resources>.

- The Watershed Company and Parametrix. 2018. Shoreline Master Program, Cowlitz County. Prepared in May 2018.
- U.S. Department of Agriculture, Natural Resources Conservation Service. 2019. Web Soil Survey hydric soil GIS data for Cowlitz County Soil Survey Area, versions 6 (spatial), 16 (tabular), and 20 (survey area), September 16, 2019. Cowlitz County, Washington.
- U.S. Department of the Interior, Fish and Wildlife Service. 2019. National Wetlands Inventory (NWI) GIS data for Washington. Published October 1, 2019. Accessed on March 5, 2020, from <http://www.fws.gov/wetlands>.
- U.S. Fish and Wildlife Service. 2019. Critical habitat GIS data (all species). Published November 4, 2019. Washington, D.C.
- U.S. Fish and Wildlife Service. 2020. Information, Planning, and Conservation (IPaC) online screening tool. Accessed on March 6, 2020, from <https://ecos.fws.gov/ipac/>.
- Washington Department of Fish and Wildlife. 2019. Known locations of Priority Habitats and Species (PHS) in Washington State. PHS on the Web. Last updated July 30, 2019.

RESULTS

Federal

- There are no mapped hydric soils at or near the Project Area, but NWI data show the presence of an intermittent, seasonally flooded, riverine streambed (R4SBC) feature running perpendicularly across proposed parking area options A and B. This NWI feature, however, was photo interpreted using 1:80,000-scale, black and white imagery from 1975, and was not observed during a December 12, 2019, site visit for this analysis. There are also three Washington State Department of Natural Resources -mapped, intermittent streams that may cross proposed trail options. We recommend a detailed site investigation before construction to delineate any wetlands and waters in the Project Area. If jurisdictional features are found, U.S. Army Corps of Engineers (USACE) permitting per Sections 401 and 404 of the Clean Water Act would be required and could potentially be authorized under Nationwide Permit 42 - Recreational Facilities.
- Merwin Reservoir is designated critical habitat for bull trout, which is a species listed as Threatened under the Endangered Species Act (ESA). However, impact to bull trout and/or their habitat will likely not be required to complete the project as all work would be done in the dry and with adequate Best Management Practices to avoid effects to Merwin Reservoir.
- The Bald and Golden Eagle Protection Act (as amended) establishes criminal penalties for taking¹ bald or golden eagles, their nests, or their eggs. Scheduling work to occur in late summer (August-September) will effectively eliminate potential impacts to nesting bald and golden eagles.

¹ The word “taking” in the context of this law includes pursuing, shooting, shooting at, poisoning, wounding, killing, capturing, trapping, collecting, molesting or disturbing.

- Parking areas and trails must be constructed in accordance with the American's with Disabilities Act (ADA). There is no permitting process for the ADA; enforcement occurs via investigations of complaints or lawsuits.

Washington State

- The State Environmental Policy Act (SEPA) review process is generally completed by Cowlitz County planning and permitting staff. To facilitate this process, an Applicant must provide a SEPA Environmental Checklist summarizing potential impacts. The lead agency—typically the Department of Fish and Wildlife (WDFW) or the Department of Ecology (WDOE)—then determines whether the proposed actions would likely have a significant adverse environmental impact. The lead agency will issue a Determination of Non-Significance (DNS) if the project has no adverse impacts, a Mitigated Determination of Non-Significance (MDNS) if the project has impacts that can be suitably mitigated, or a statement of exemption if the project meets criteria to be exempt from SEPA (see WAC 197-11-800). Otherwise, if the lead agency determines the proposed project will have adverse environmental impacts, they will issue a Determination of Significance (DS), which requires the Applicant to prepare an Environmental Impact Statement (EIS).
- WDFW requires a Hydraulic Permit Application (HPA) if proposed activities will “use, divert, obstruct, or change the natural flow or bed of any of the salt or fresh waters of the state.” [RCW 77.55.011(11)]. Work for trail crossings of state waters² should be restricted to areas above the ordinary high water line³ as much as possible; however, stormwater drainage from the proposed parking area may be enough to “change the natural flow” of the intermittent watercourses in the Project Area and thus require an HPA. SEPA documentation (DNS, MDNS, DS with EIS, or the lead agency’s statement of exemption) must be included with the HPA application.
- A Joint Aquatic Resource Permit Application (JARPA), managed by the Washington State Governor’s Office of Regulatory Innovation and Assistance (ORIA), can be used to apply for many permits simultaneously (e.g., CWA Sections 404 and 401 permits, HPA, Isolated Wetlands Administrative Order from WDOE, Floodplain Development Permit, Shoreline Permit or exemption, and Aquatic Lands Use Authorization).

Cowlitz County

- A Shoreline Substantial Development Permit (SSDP) is required for any proposed work within 200 feet of the Ordinary High-Water Mark of any watercourse or lake, including Merwin Reservoir and the intermittent streams in the Project Area. An approved SSDP ensures that the proposed project is consistent with Cowlitz County’s Shoreline Master Program, thereby maintaining the County’s compliance with Washington State’s Shoreline Management Act of 1971 (SMA). Compliance with the SMA also protects

² I.e., all salt and fresh waters waterward of the ordinary high-water line and within the territorial boundary of the state [RCW 77.55.011(25)].

³ The mark on the shores of all water that will be found by examining the bed and banks and ascertaining where the presence and action of waters are so common and usual, and so long continued in ordinary years as to mark upon the soil or vegetation a character distinct from the abutting upland.

Washington's PHS. PHS records for the Project Area include documented occurrences of northern spotted owl (*Strix occidentalis*), mule and black-tailed deer (*Odocoileus hemionus*), Rocky Mountain elk (*Cervus elaphus nelson*), and western toad (*Anaxyrus boreas*).

- A Critical Areas Permit must be acquired from the Cowlitz County Building and Planning Department to authorize the project. This will require an Erosion Control Plan (ECP). An approved Critical Areas Permit ensures that the proposed project is consistent with Cowlitz County's Critical Areas Ordinance, thereby maintaining the County's compliance with the Washington State Growth Management Act of 1990 (GMA). Compliance with the GMA also protects PHS (see the SSDP description above for a list of PHS records in the Project Area).
- An Excavation and Grading Permit (and a Building Permit, if any structures such as restroom facilities are to be constructed) must be acquired for the project from the Cowlitz County Building and Planning Department to comply with Cowlitz County Grading Ordinance. This ensures public health and safety, and protects nearby waters of the state from the adverse effects of erosion and sedimentation. This project will likely require a Grading Plan prepared and stamped by a geotechnical or civil engineer licensed to work in the State of Washington per Cowlitz County Code 16.35.070.

SUMMARY

This memorandum was based on observations from a December 12, 2020, site visit and desktop analysis of available natural resource data for the Project Area and any associated regulatory requirements. The Project Area is the outermost boundary of all parking area and trail options provided by MSI. We recommend more detailed site investigations prior to construction of the chosen parking area and trail options to corroborate the initial findings discussed in this memorandum and support preparation of permit applications.

There are no mapped hydric soils and only one NWI-mapped riverine feature within the Project Area. Regardless, the chosen parking area and trail option will likely require a USACE wetlands/waters permit (possibly NWP-42 authorization), JARPA, and HPA.

There are no critical habitats within the Project Area. However, Washington's PHS records in the area include northern spotted owl, mule and black-tailed deer, Rocky Mountain elk, and western toad. Project work may have to adhere to seasonal and daily timing restrictions to avoid impacts to northern spotted owl. If the SEPA Environmental checklist does not result in a DNS, MDNS, or a statement of exemption, then an EIS will have to be prepared. Otherwise, ESA-listed species and HPA features would be protected when the project adheres to all conditions stipulated in the approved SSDP, Critical Areas Permit, ECP, and the Excavation and Grading Permit.

Attachment 1



Map of Day-Use Parking and Trail Options

PacifiCorp - Speelayi Bay Park
Day-Use Parking Feasibility Study Memo
Cowlitz County, Washington



- Existing Paved Road
- - - Existing Dirt Road
- Project Area
- - - Trail Option A
- - - Trail Option B

MB&G

Source: Basemap from WDNR DEM hillshade and NAIP imagery; Project Area from MB&G. Reproduced for informational purposes and may not be suitable for legal, engineering, or surveying purposes. Conclusions drawn from such information are the responsibility of the user.

