

Lewis River Fish Passage Subcommittee Meeting

Agenda

Thursday May 11, 2023

2:30 to 4:30 pm

Teams

2:30	Introductions, Review Agenda and Approve Meeting Notes <ul style="list-style-type: none">• March, April meeting notes	All
2:40	Design Team Updates	Hansen/Higa/All
3:00	Elements of Lewis River Future Fish Passage <ul style="list-style-type: none">• Comments• Next Steps	Olson/All
4:25	Next FPS meeting – June 8 th in person, hybrid option <ul style="list-style-type: none">• Agenda	All
4:30	Adjourn	

FINAL Meeting Notes
Lewis River License Implementation
ACC Fish Passage Subcommittee Meeting
May 11, 2023
2:30 pm – 4:30 pm
MS Teams Meeting

Attendees

Christina Donehower – Cowlitz Indian Tribe	Jeffrey Garnett – USFWS
Amanda Farrar – Cowlitz PUD	Tyanna Blaschak – USDA-FS
Steve Manlow – LCFRB	Sam Gibbons – WDFW
Steve West - LCFRB	Bryce Glaser – WDFW
Beth Bendickson – PacifiCorp	Josua Holowatz – WDFW
Eric Hansen – PacifiCorp	Peggy Miller – WDFW
Nathan Higa – PacifiCorp	Erin Peterson – WDFW
Chris Karchesky – PacifiCorp	Pad Smith – WDFW
Erik Lesko – PacifiCorp	Keely Murdoch – Yakama Nation Fisheries
Todd Olson – PacifiCorp	Bill Sharp – Yakama Nation Fisheries
Jim Byrne – Trout Unlimited	

Introductions, Review Agenda and Approve Meeting Notes

Bryce Glaser, WDFW, reviewed the meeting agenda. Beth Bendickson, PacifiCorp, will send out the March and April 2023 meeting notes for final 7-day approval. If no additional comments are received, they will be considered final.

Design Team Updates

Eric Hansen, PacifiCorp, provided an update on the Yale downstream fish passage facility. He walked the group through an alternative Yale FSC launching locations drawing. The initial location was Saddle Dam; however, the new alternative location is the grassy area at Yale Park where the old boat launch ramp was from the 1980s. He suggested opening the site up and adding gravel to the area so we can build the (FSC, launch it with the new launch ramp as shown and then perhaps turn it into parking and recreational use. At the end of the day, there would potentially be two ramps and a parking area. Bryce Glaser, WDFW, asked about the normal process for recreational use expansion - does it cross ACC and TCC coordination? Todd Olson, PacifiCorp, said it depends on where the park is located. In the case of Yale Park, we would advise the TCC. As we go about these projects, we would be looking at noise impacts and impacts to WHMP land (if any). This project has the potential with such a large work area. Saddle Dam Park is too narrow an area for all the Saddle Dam rehabilitation work going on. We have FERC approval to expand the Yale parking area near the orchards. Eric requested FPS provide any feedback on constructing the FSC at Yale Park.

Comments

Bryce likes working towards dual use. He asked two questions: 1) Is this an appropriate area for the FSC and launching? and 2) Is it worth developing it into recreational use? The first question would more pertain to this group. How do we get feedback to you? Todd said provide feedback directly to Todd or Eric and that once we get feedback, we'll have a recreation advisory meeting in the fall and we'll make sure to get this on their agenda. Peggy Miller, WDFW, asked if it is wildlife mitigation land. Todd replied that he would check with Kendel Emmerson, PacifiCorp, on the boundary.

Bryce said in terms of timeline, maybe give folks time to get comments back by the next meeting. Todd said feedback then is fine, we'd like to get input as we work on the 60% design. Next steps: provide questions or concerns about using the proposed site by the next meeting.

Eric added that we are still working on advancing from the 30% design to the 60% design.

Nathan Higa, PacifiCorp, provided an update on Yale and Swift upstream facilities. The design team is working on number crunching for the entrance and designing the structure itself, including foundation design. The biggest thing on both projects is looking at the water supply, currently proposed as a pump system design for both projects. At Yale, they have new information and might look at tapping the penstock to produce better hydraulics. For Swift, there are several different configurations. There are concerns about construction, operation, and generation issues that such tapping would cause, as well as looking at alternative pump locations such as a tailrace pump intake and expanding the siphon outlet. They are continuing to refine the 30% design to the 60% design.

Chris Karchesky, PacifiCorp, reported they are in the seventh week of tagging spring Chinook and moving into steelhead and coho. They have tagged 117 spring Chinook (out of 140). They are in infancy stages of tagging steelhead and coho, and are looking to have the tagging completed by the end of this month. He expects to see preliminary behavioral information in coming months. There have been no major hiccups to date.

Elements of Lewis River Future Fish Passage

Todd would like to get track changes on the latest Draft Lewis River Elements of Lewis River Future Fish Passage document, sent out on May 4, 2023. If we get these back by the end of the month, we could have a final version to review and subsequently finalize the decision document with the ACC in June. He said he realizes there are others within the ACC organizations who may need to review it as well.

Comments

Bryce thanked Todd for sending out a clean version, and provided some initial WDFW comments on some of the sections, as follows:

- **Introduction:** He suggested adding “certain process steps and details... How do we call out specific sections and say that some studies are already underway?”

- **Section 3 (Studies):** He suggested looping back to the ACC for review and recommendation development.
- **Section 6 (Construction Schedule):** There has been a lot of discussion around the change to 2032 for Merwin downstream. Bringing in attachments and schedule details was very helpful in conjunction with spillway modifications. On the schedule dates, can we clarify “completed vs. operational?” Todd said yes if we’re still doing some minor things, like painting, etc. When fish are coming in and being transported, it is operational. This is what we are working to accomplish. From WDFW’s perspective, Bryce said they’ve grown more comfortable with the 2032 date.
- **Section 7 (Bull Trout Passage):** No WDFW comments. Jeff Garnett, USFWS, added that he will provide comments later on.
- **Section 8 (Merwin Downstream Passage):** Bryce suggested adding language around truck transport to other forms of collection. Todd mentioned two ways to move them (truck or bypass). To get them into a facility, he used “truck transport and bypass passage systems” and thinks it generally captures everything. Bryce is now ok with the current language. Peggy asked about the bypass system. Can be collector and piping downstream, or thick bypass Howard Hanson Dam; multi-port vs single port. Is the sentence limiting us to one type or another type of collector? Todd said his intent is to do an evaluation like we did for previous ones. Peggy will re-read it to see if other language would be beneficial to add. Bryce said, internally, their team is looking more at the date ranges.
- **Section 9 (Upstream Passage Expansion):** WDFW is interested in capacity. Bryce appreciated the change from six to seven pounds. They are still struggling with the 1,800 fish per cycle as it isn’t in alignment with the information they provided. WDFW will think more about it to see if they are comfortable with that number. They suggest that better clarification of the operational cycle would be helpful. There is some improved language, but some is vague. They haven’t received any feedback on the numbers provided at the last meeting. Todd said there are different ways to get the fish upstream. You can build a super big facility, or you can operate with additional cycles.

Chris appreciated Bryce giving the presentation at the last meeting. He then shared some slides to show what the current design is and how it applies to the WDFW presentation. Regarding “front door” capacity and operational cycle. We can add more trucks to transport more fish. Staffing is anticipated to be limited, but in peak coho season more can be added. Peggy said she was trying to figure out the math of getting to 7.7 hours. Chris said that at Merwin, it typically takes 45 minutes initially to get a fish tank full and ready for transport. While that load is being transported, the second tank is getting readied. Once the truck returns, the second tank is loaded. During coho season there are multiple trucks, and WDFW provides assistance. Steve Manlow, LCFRB, asked about fish behavior and overall capacity. How do the fish use it? This assumes the whole facility can be used as a holding area. At Merwin, Chris said fish go into the ladder and crowder area. We’ve observed that fish enter, ascend, and then descend. You can design certain elements to build into the system that prevent fish from moving back downstream. You can easily use one-way gates that fish have difficult time getting out. This is part of Merwin fish ladder/fish lift modifications that’s scheduled for this summer. They can be used for low density times. Other times in the year, you get so many fish in the system that you want them to be able to hold in the entrance pool and ladder areas. Ladders are good holding areas in high density times. Steve said you can install features to help avoid bottleneck. He thanked Chris for the good explanation. Part of the design, Chris said, is having that control with fish moving in and out of the ladder. Erin Peterson, WDFW,

asked about the logistics of trucking. She said it sounds like when running trucks with the sampling crew, they will have the fish ready about the time the first truck gets back. It seems you would need to have a second crew to run a second truck. Chris replied that it boils down to how far they need to go. What they do at Merwin with large numbers of fish is they have multiple tanks where fish can be placed while waiting for transport. In that case where you have the need for additional trucks, is have the crew show up earlier and have two or three tanks ready to go, then load up on top of each other. They do have separate crews (biologists to sort and get tanks ready; another crew is basically the truck drivers). Erin mentioned staffing capacity at multiple dams and was it built in for the other dams? Chris said it will be interesting to see. We already have on-call staffing if need be. We have fish run projections and know how many fish we took downstream, and we can get ready for large numbers of fish years in advance. It's all part of adaptive management as we move forward. Todd said that in our budget planning, we have additional fulltime staff coming in 2026. We'll use contractors to hit the peak if need be. Josua Holowatz, WDFW, asked about monitoring fish movement into the facility, and in the ladder holding area. There is quite a bit of space there – will there be an ability count fish before working them up? Chris said we'll generally know they are coming because we are monitoring and transporting fish at Merwin. There will be accommodations for extra staff. He thinks there is a lot of opportunity to monitor fish progress. Chris to Bryce – are you feeling more comfortable as to where the 1,800 fish number came from? Bryce appreciated Chris's explanation and slides. Todd will add a bit more to Section 9 in the draft Elements document based on Chris's presentation.

- **Section 14 (Transport Plan):** A suggestion was made to reword the last sentence language to “reservoir of origin.”
- **Attachment D (Alternative Analysis):** The initial read was good but Bryce needs more time to review it.

Peggy said that WDFW may have a few more minor comments. Todd reiterated he would like to get a version out in time for the ACC to review it at the June hybrid meeting.

Keely Murdoch, Yakama Nation Fisheries, wondered about the timeline process. Some agencies may need additional time for high level internal review. Todd said he would like to get everyone's comments into a “near final” version. He would then draft the decision document and have it ready seven days ahead of ACC meeting. At the ACC meeting, we could see if we are missing anything. He would like to be at a spot such that folks could share it with others within their respective organizations so the ACC could potentially have a final decision at the July meeting. Then it would go to the Services for their agreement and then to FERC. Is that reasonable? Keely said she thinks so but will let him know if they need more time.

Next Steps

- Meeting logistics of June hybrid meeting. ACC – 9:30AM-Noon; FPS meeting Noon to 2PM. Beth will adjust FPS meeting time (completed).

Next FPS Meeting: June 8, 2023

Agenda Items

Action Items from May 11, 2023	Status
Beth will send out the March and April notes for final 7-day review.	
Todd to identify WHMP boundary near Yale Park	
Review/provide comments on Draft Lewis River Elements of Lewis River Future Fish Passage by May 31, 2023.	

The meeting adjourned at 4:13 p.m.

**Lewis River License Implementation
ACC Fish Passage Subcommittee Meeting
May 11, 2023**

Presentation Materials

Upstream Fish Passage Facility Capacity and Sizing

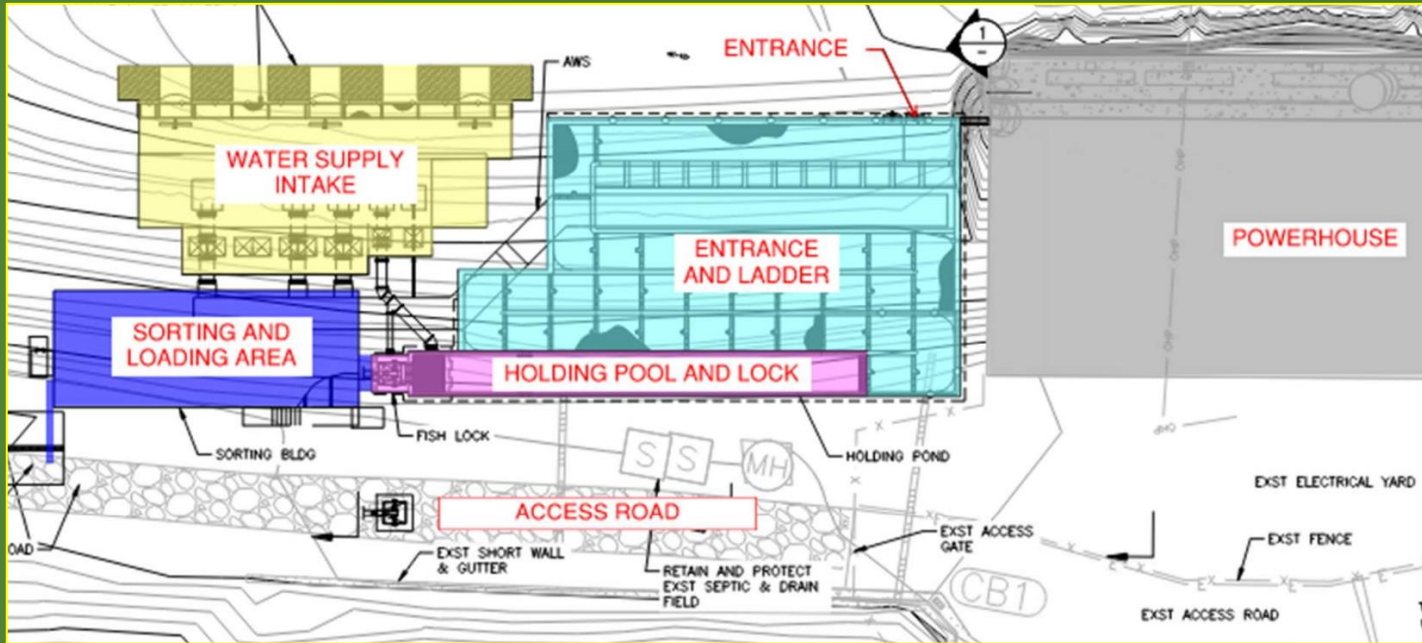
Fish Passage Subgroup Meeting – 5/11/2023

Concerns.

- ▶ Don't want an under-sized facility.
 - ▶ Excessive delays
 - ▶ Increased injury/mortality
 - ▶ Strained operational capacity
- ▶ Have ability to expand post-trap holding capacity, but getting the trap entrance, size and attraction ("front-door") sized appropriately at the start is important.
- ▶ Don't want to over-build facility.
 - ▶ Extra cost
 - ▶ Inefficient use of funds/resources

Yale Upstream Facility

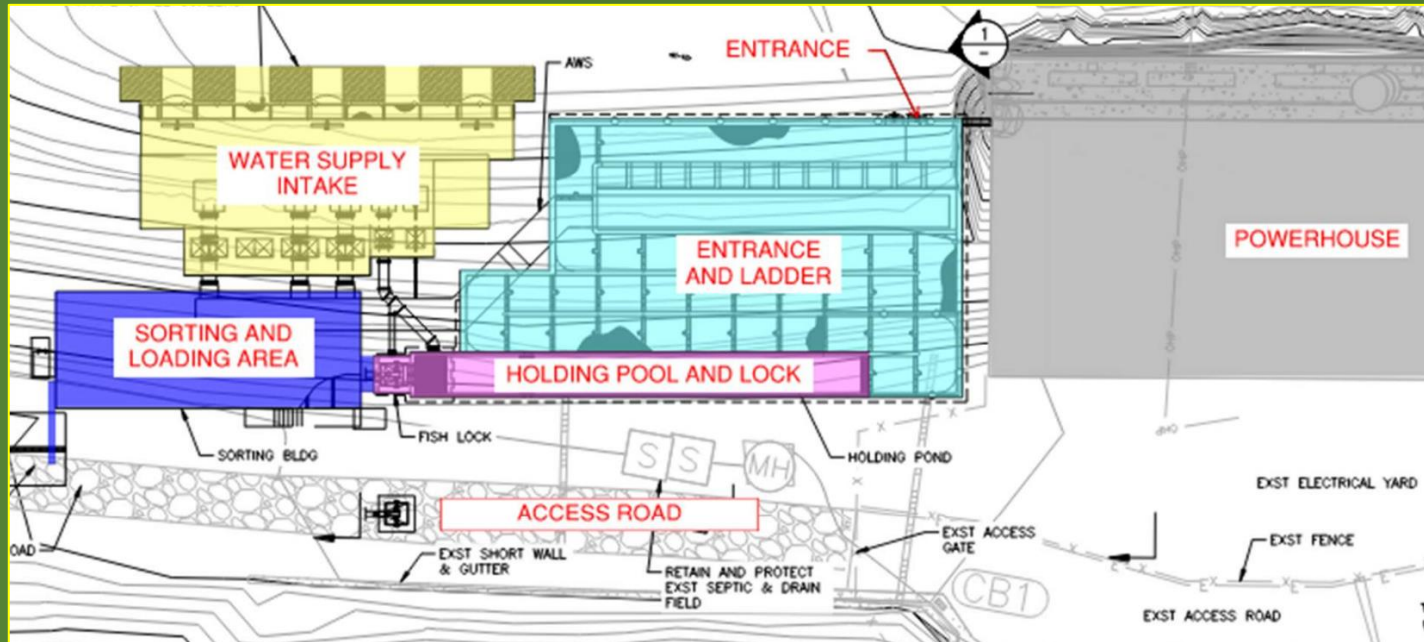
Design capacity for the Yale Upstream



30% Design Layout



Yale Upstream Facility



30% Design Layout

Design capacity for the Yale Upstream Facility's Front Door:

- Average fish size: 7lbs/fish
- Total capacity in the entrance pool = 1,829 fish
- Fish ladder = 117 fish per ladder pool (~27 ladder pools):
 - Total capacity in the ladder = 3,167 fish
- Holding pool capacity = 1,100 fish
- Total capacity from entrance to upstream end holding pool ("front door") = 6,096 fish

Yale Upstream Facility

Upstream transport route



Fish processing and transport times

Fish Processing Time	Minutes
Crowding (one-time)	10
Lock Lift	15
Process one truck load	20
TOTAL	45
Transport Time	Minutes
Truck Loading	14
Transport (to) - 1.8 miles	8
Dumping	10
Transport (from) - 1.8 miles	8
TOTAL	40
Number Truck(s)	1
Number Fish/Load	180
Number of Loads/Truck	10
Total Fish Moved	1,800
Hours to Complete	7.7

Yale Upstream Facility

Upstream transport route



Fish processing and transport times

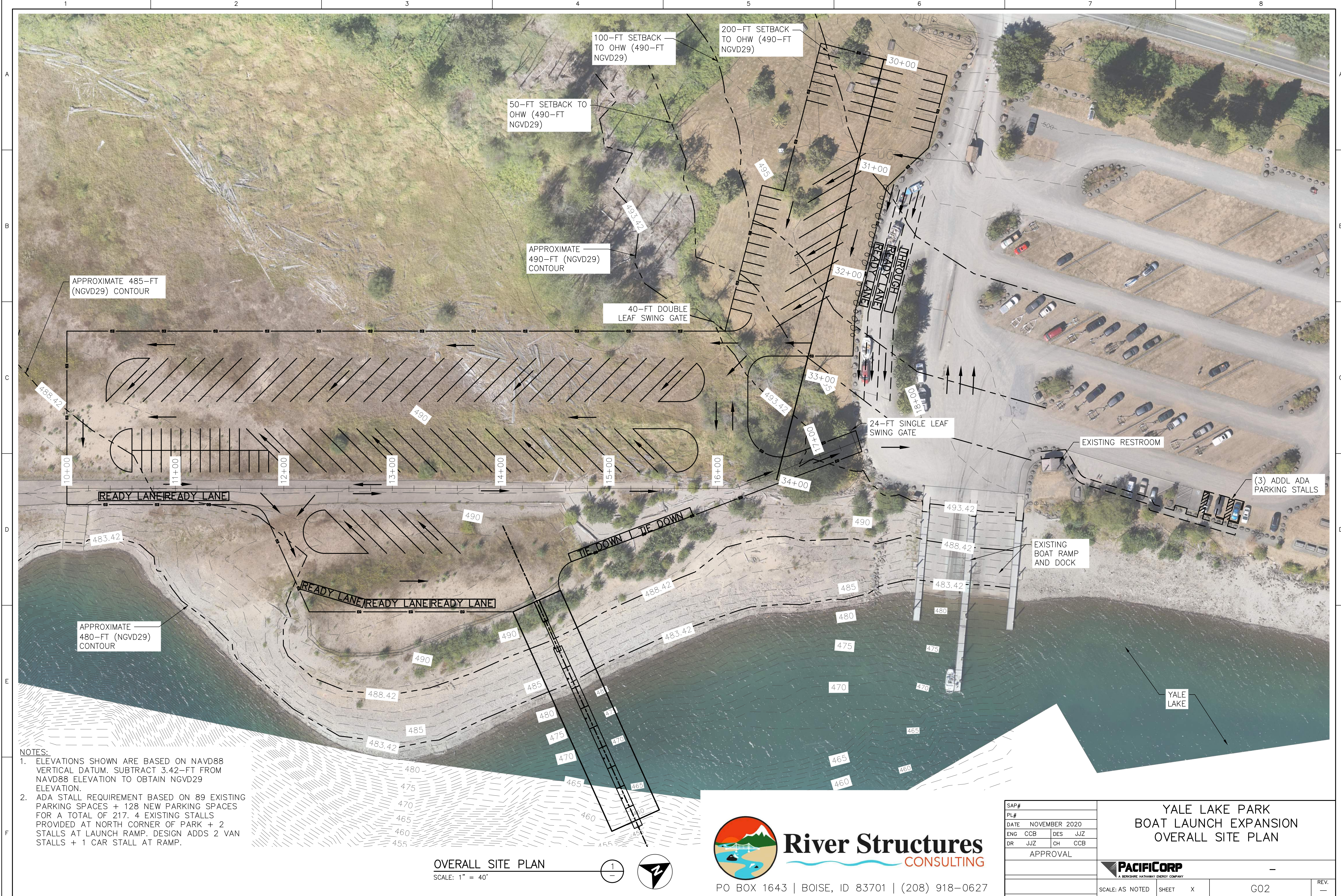
Fish Processing Time	Minutes
Crowding (one-time)	10
Lock Lift	15
Process one truck load	20
TOTAL	45
Transport Time	Minutes
Truck Loading	14
Transport (to) - 1.8 miles	8
Dumping	10
Transport (from) - 1.8 miles	8
TOTAL	40
Number Truck(s)	2
Number Fish/Load	180
Number of Loads/Truck	10
Total Fish Moved	3,600
Hours to Complete	7.7

This photo was emailed to FPS Group on 5/12/23

Eric Hansen shared the photo below as an accompaniment to his Yale Downstream FSC, Yale Park, FSC launching site option that he shared during yesterday's FPS meeting. He says, "the photo is an example from the Swift FSC launch site about a decade ago. Literally need a work area the size of the football field to perform this fabrication work prior to launching the FSC into the reservoir."

Yale DS FSC_ Prior Swift FSC Launch Photos Circa 2012





- NOTES:**
1. ELEVATIONS SHOWN ARE BASED ON NAVD88 VERTICAL DATUM. SUBTRACT 3.42-FIT FROM NAVD88 ELEVATION TO OBTAIN NGVD29 ELEVATION.
 2. ADA STALL REQUIREMENT BASED ON 89 EXISTING PARKING SPACES + 128 NEW PARKING SPACES FOR A TOTAL OF 217. 4 EXISTING STALLS PROVIDED AT NORTH CORNER OF PARK + 2 STALLS AT LAUNCH RAMP. DESIGN ADDS 2 VAN STALLS + 1 CAR STALL AT RAMP.

OVERALL SITE PLAN
SCALE: 1" = 40'

River Structures
CONSULTING

PO BOX 1643 | BOISE, ID 83701 | (208) 918-0627

SAP#	
PL#	
DATE	NOVEMBER 2020
ENG	CCB DES JUZ
DR	JUZ CH CCB
APPROVAL	

YALE LAKE PARK
BOAT LAUNCH EXPANSION
OVERALL SITE PLAN

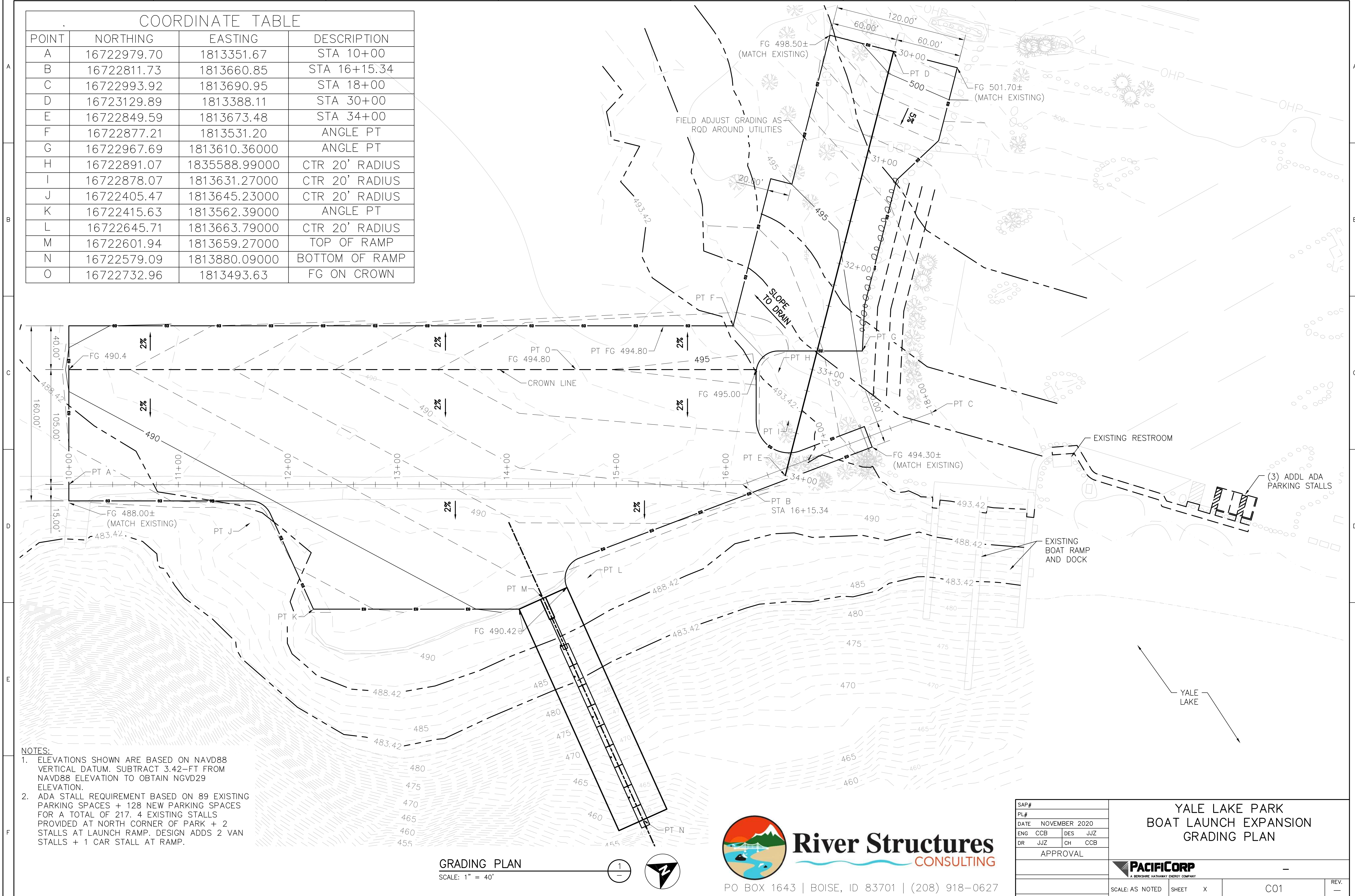


SCALE: AS NOTED	SHEET X	G02	REV.
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No.	DATE	REVISION

COORDINATE TABLE

POINT	NORTHING	EASTING	DESCRIPTION
A	16722979.70	1813351.67	STA 10+00
B	16722811.73	1813660.85	STA 16+15.34
C	16722993.92	1813690.95	STA 18+00
D	16723129.89	1813388.11	STA 30+00
E	16722849.59	1813673.48	STA 34+00
F	16722877.21	1813531.20	ANGLE PT
G	16722967.69	1813610.36000	ANGLE PT
H	16722891.07	1835588.99000	CTR 20' RADIUS
I	16722878.07	1813631.27000	CTR 20' RADIUS
J	16722405.47	1813645.23000	CTR 20' RADIUS
K	16722415.63	1813562.39000	ANGLE PT
L	16722645.71	1813663.79000	CTR 20' RADIUS
M	16722601.94	1813659.27000	TOP OF RAMP
N	16722579.09	1813880.09000	BOTTOM OF RAMP
O	16722732.96	1813493.63	FG ON CROWN



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- ELEVATIONS SHOWN ARE BASED ON NAVD88 VERTICAL DATUM. SUBTRACT 3.42-FT FROM NAVD88 ELEVATION TO OBTAIN NGVD29 ELEVATION.
 - ADA STALL REQUIREMENT BASED ON 89 EXISTING PARKING SPACES + 128 NEW PARKING SPACES FOR A TOTAL OF 217. 4 EXISTING STALLS PROVIDED AT NORTH CORNER OF PARK + 2 STALLS AT LAUNCH RAMP. DESIGN ADDS 2 VAN STALLS + 1 CAR STALL AT RAMP.

GRADING PLAN
SCALE: 1" = 40'

River Structures
CONSULTING

PO BOX 1643 | BOISE, ID 83701 | (208) 918-0627

SAP#	YALE LAKE PARK BOAT LAUNCH EXPANSION GRADING PLAN		
PL#	DATE	NOVEMBER 2020	
ENG	CCB	DES	JUZ
DR	JUZ	CH	CCB
APPROVAL			
PACIFICORP A BURNS & MCDONNELL COMPANY		-	
SCALE: AS NOTED	SHEET	X	C01
DATE	REV.	-	

REFERENCE DRAWINGS	
DRAWING No.	
REFERENCE DRAWINGS	
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CHK APP	
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REVISION	
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