CITY OF BOISE

Water Park Phase II

Long Term Modifications Update

75% Design Overview

OCTOBER 6, 2023

McMillen

Agenda

- 75% Design Walk Through
- Procurement activities
- Schedule
- Next steps

Design and Build Approach

- Hydraulic Modeling ☑
- Develop 75% design ☑
- Solicit vendors for pricing ☑
- Issue PO’s for materials and parts
- Receive vendor design data
- Complete design for final approval
- Construct winter of 2023

Major Feature Overview

- Replace gates 4 and 5 with four 10-foot Obermeyer bladders for better river flow control
- Add 40’W x 4’H Obermeyer weir D/S of waveshaper to provide tailwater stability
- Run new air and lines and wiring for two new gates and new waveshaper stabilizing weir
- Modify equipment building and controls for new gates
- Simplify and waterproof vault components for flood resiliency and reduced maintenance
- Relocate stilling wells upstream of FUDC intake for better system accuracy
- Add a plunge pool behind new gates on spillway for increased safety
- Mitigate leakage D/S of fish ladder on left bank

Main Spillway

- Modifying existing gates 4 and 5 (G005, C102)
  - Split existing 20’ section to 2-10 sections
  - New bladders
  - Additional hardware, seals, straps, etc.
  - Will finalize with info from Obermeyer
- Running new airlines and routing on D/S side of apron (see S102, S104, M102)
- Encased in concrete (S105)
- New plunge pool 50’W x 25’ D/S x 5’ Deep (C101, C102)

Equipment Building

- Equipment Building
  - Add three new zones on manifold
  - Inputs for three new inclinometers
  - No compressor modifications needed
  - Open trench for new airlines

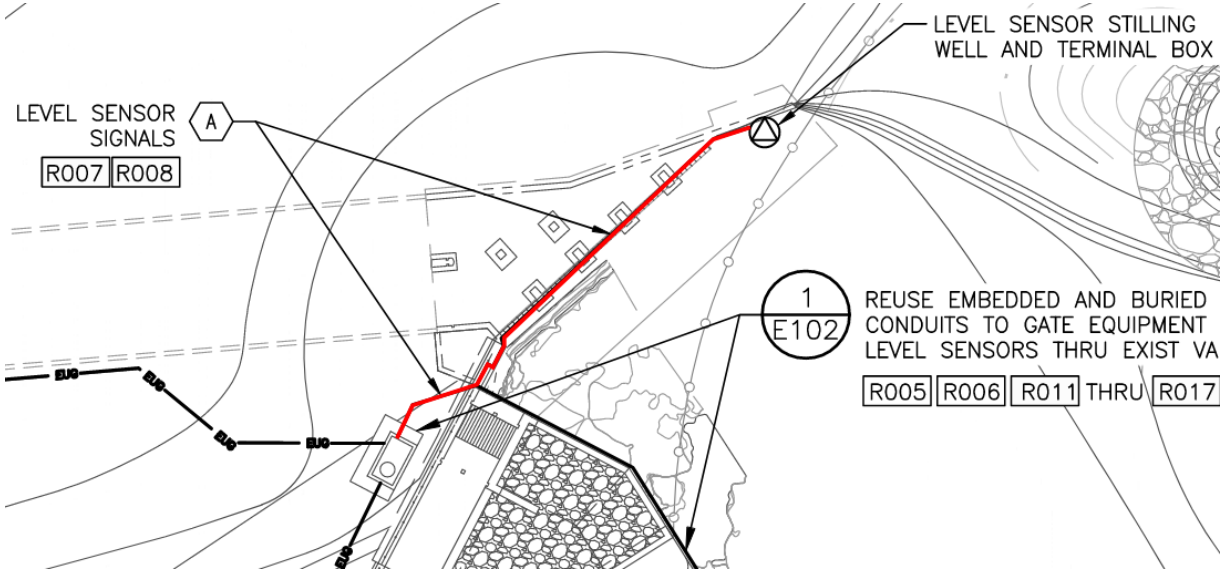
Vault

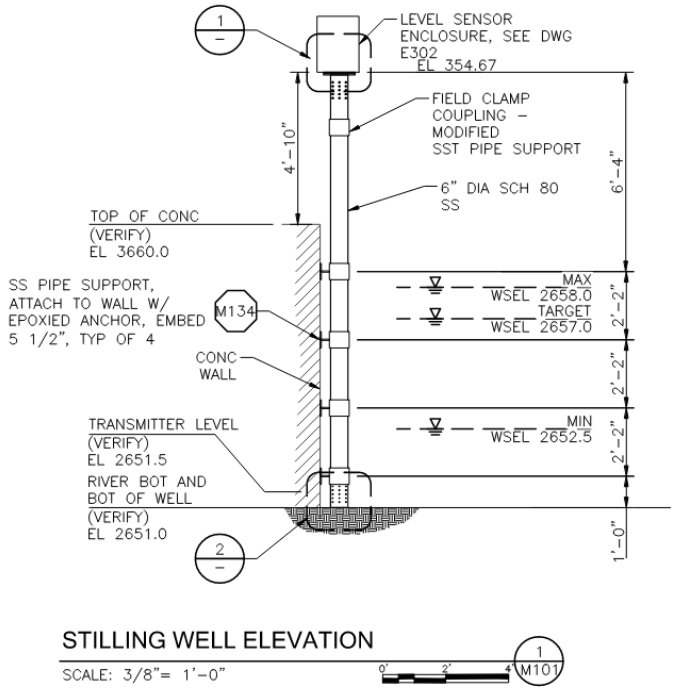
- Demo slab above (piping and conduit routing) (D101)
- Lift stairs up (piping and conduit routing) (D101)
- Run new airlines and new inclinometer wiring (M101)
- New stilling well conduit run (E104)
- Condensate drain box near bottom of stairs (M101)
- Waterproof terminal box connections in JB3 (E102)
- Proposing to replace condensate solenoid valves with manual valves and locate near top of manhole
- Remove desiccant unit
- Remove heater unit

- With these modifications there will be no need to enter vault on regular basis and complexity is reduced.

Stilling Wells

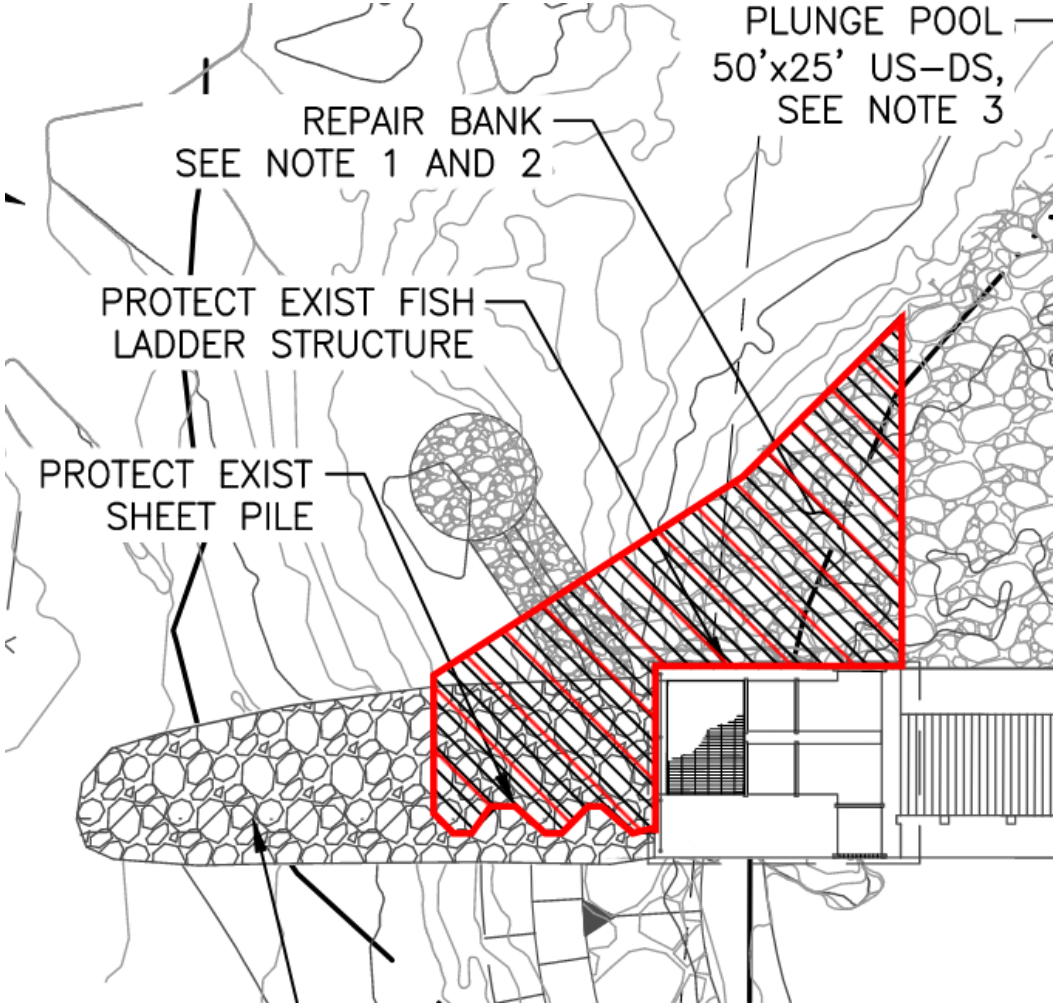
- Relocate to upstream side of FUDC intake (E104)
- Surface mounted standard McMillen design (M103, E103)
- Run conduit on bottom of existing railing, paint black to match





Left Bank

- Demo rip rap and install geomembrane place back riprap and regrout
- ~total demo for left bank and plunge pool is ~400 CY



Proposed Schedule

Description	Schedule	Status
Hydraulic Modeling	Through May 2023	Complete
Detailed Design 75%	End of June 2023	Complete
Obermeyer Pricing	July 2023	In Hand
Boise Approval of 75% Approach	September 2023	In Progress
Procurement (PO's Issued)	September 2023	Pricing in hand
IFC Design	Late October 2023	Need Obermeyer Info
Construction	November 2023- February 2024	

Next Steps

1. City affirms design approach and provides comments. McMillen will provide:
    i. Current ~75% drawings
    ii. Hydraulic Tech Memo TM009
    iii. Update SOW TM008
    iv. Project Schedule
2. Order parts and services from Obermeyer
3. Finalize design
4. Construction

Thank you.

McMillen