



DFCM Addendum No. 3

Date: January 12, 2024

To: Short-Listed Contractors

From: Tim Parkinson – DFCM Project Manager

Reference: Warm Water Aquaculture Hatchery
Department of Natural Resources / Division of Wildlife Resources
Logan, Utah
DFCM Project No. 20467520
U3P Sourcing Event MW24014

Content: Total DFCM Addendum Page(s)
6

Note: This Addendum shall be included as part of the Contract Documents. Items in this Addendum apply to all drawings and specification sections whether referenced or not involving the portion of the work added, deleted, modified, or otherwise addressed in the Addendum. Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to Disqualification.

3.1 SCHEDULE CHANGES: There are no Project Schedule changes within this addendum.

3.2 GENERAL ITEMS – Questions/Answers/Clarifications:

3.2.1 Question: Groundwater Elevation compared to Finish Floor: The geotechnical report recommends placing floor slabs no closer than 4' from the highest groundwater elevation. The designed elevation of the finish floor is 4442.8 based on the bore logs from the geotech water could be anywhere from 4438.2-44439.2 at the highest points. Please confirm that we are good to use as designed elevations for calculation of earthwork cut and fill or will there be anticipated grades changes to keep the floor from any existing ground water? *Asked by: Justin Broshear, COP Construction LLC on 1/10/2024 2:32 PM MST.*

Response: *The groundwater source creating the high water elevation in Borehole #2 and likely affecting Boreholes #3 and #4 has been captured and mitigated. Construction of the westside stormwater management system revealed groundwater depths consistent with Borehole #1. There is no anticipated change to finish floor elevation.*

3.2.2 Question: Drawing Scale on sheets 5 and 7: The Scales on pages 5 and 7 shown the same scale, but the scale should be different on sheet 7. Could these corrected? *Asked by: Justin Broshear, COP Construction LLC on 1/10/2024 2:30 PM MST.*

Response: *Scale on Sheet No. 7 should be read as 1" = 25'.*

3.2.3 Question: WW Aquaculture Bldg: Is the 120 gallon hydro-pneumatic tank supplied by the owner as part of the new hyper infusion system? *Asked by: Nathan Hansen, DWA Construction, Inc. on 1/10/2024 2:29 PM MST.*

Response: *No - the 120 gallon hydro-pneumatic tank is to be furnished and installed by the contractor.*



- 3.2.4 Question: Pressure Sustaining/PRV Vault:** Are there details that can be provided for the pressure sustaining/PRV vault referenced on GPP-1 (PG 4)? *Asked by: Justin Broshear, COP Construction LLC on 1/10/2024 2:28 PM MST.*
Response: Please see Sheet H005, Page 168, of the plan set.
- 3.2.5 Question: Flow Metering and Flow Mixing Vault:** Are there details that can be provided for the flow metering and flow mixing vault referenced on GPP-1 (PG 4)? *Asked by: Justin Broshear, COP Construction LLC on 1/10/2024 2:28 PM MST.*
Response: Please see Sheet H005, Page 168, of the plan set.
- 3.2.6 Question: Concrete Joints:** Will all of the joints in the concrete around the tanks require water stop in the joints? There is also a note saying pits shall be poured with Xypex. Does that include the trenches, concrete under the tanks, and slabs around the tanks? Please define the scope where that needs to be added. *Asked by: Jared Dixon, Spindler Construction Corporation on 1/10/2024 2:18 PM MST.*
Response: Yes to first question about water stops. Xypex is required in the drains, trenches, pits, and sumps but not in the slab on grade. See General Concrete note 5 on sheet S001 and Foundation Plan note 10 on sheet S100.
- 3.2.7 Question: Trench Depth:** On sheet S200 there is shown a trapezoidal trench that extends under the tanks. The process drawings only show piping underneath the tank. Can you clarify the depth of these trenches underneath the tanks? It appears that the trenches could be higher than the bottom of tanks that could lead to water collecting in the space around the tanks and not draining into the trench system. *Asked by: Jared Dixon, Spindler Construction Corporation on 1/10/2024 2:18 PM MST.*
Response: Trenches under circular tanks are at 98'-0" at their high point as shown on sheet S100.
- 3.2.8 Question: Self Leveling Grout:** There is a note that indicates the tanks will be set in a self-leveling grout. Can you clarify the thickness of the grout that should be installed? *Asked by: Jared Dixon, Spindler Construction Corporation on 1/10/2024 2:17 PM MST.*
Response: It is for construction leveling and will need to be as thick as is necessary to make the tank level.
- 3.2.9 Question: Tank Installation:** Detail B1 on A301 indicates that there will be a thickened pad underneath the tanks. The plan indicates it is a thickened slab that steps from 97 to 100. Can you provide dimensions for the thickness of these support slabs? *Asked by: Jared Dixon, Spindler Construction Corporation on 1/10/2024 2:17 PM MST.*
Response: The tanks sit in recessed pits not on thickened slabs.
- 3.2.10 Question: WW Aquaculture Bldg:** There is some discrepancy between the plans and specs for the formalin tank and containment system. Is there any more information that can be provided? *Asked added by: Nathan Hansen, DWA Construction, Inc. on 1/10/2024 2:05 PM MST.*
Response: Specific discrepancy not provided; specifications should govern. In general there is a 10-gallon bucket of formalin set in a secondary containment. Type of secondary containment is flexible. Could be spill pallet or 55-gallon drum containment system. See spec section 43 98 99 Section 2.8 - Must meet EPA requirements for secondary containment (40 CFR 264.175). Suction and return lines are connected to the formalin bucket via hoses. The peristaltic pump, timer, float controls etc. are also described in 43 98 99.



- 3.2.11 Question: Xypex:** Please clarify the extent that xypex is required in the floor slab. *Asked by: Jared Dixon, Spindler Construction Corporation on 1/10/2024 12:04 PM MST.*
Response: Xypex is required in the drains, trenches, pits, and sumps but not in the slab on grade. See General Concrete note 5 on sheet S001 and Foundation Plan note 10 on sheet S100.
- 3.2.12 Question: Bid Schedule:** Can the bid schedule be submitted within 24 hours after the bid, along with the subcontractor list? *Asked by: Jared Dixon, Spindler Construction Corporation on 1/10/2024 11:51 AM MST.*
Response: No - DFCM Addendum No. 1 dated December 18, 2023, Item 1.2.1 "Bid Schedule is to be completed and submitted in U3P WITH the Bid/Bid Bond."
- 3.2.13 Question: Building Lettering:** Exterior dimensional lettering is specified, indicated for lettering as shown on elevations, however, there are no lettering shown on elevations. Can we get a clarification of the required text please? *Asked by: Jared Dixon, Spindler Construction Corporation on 1/10/2024 11:46 AM MST.*
Response: To be coordinated after award.
- 3.2.14 Question: Control System Substitution Request:** The specifications call for "Wonderware" HMI software for the control system. We ask that Rockwell software "Factory Talk View" be approved for the controls system along with Allen Bradley PLC's, VFD and other Rockwell equipment. *Asked by: Jared Dixon, Spindler Construction Corporation on 1/10/2024 11:45 AM MST.*
Response: The substitution of Rockwell and Factory Talk View components over Wonderware and Modicon components is acceptable granted the same functionality outlined in the specifications including but not limited to section 27 26 00 is met.
- 3.2.15 Question: WW Aquaculture Bldg:** Please see the attached RFI from Golden Spike Electric. *Asked by: Nathan Hansen, DWA Construction, Inc. on 1/10/2024 9:05 AM MST.*
Response: The substitution of Rockwell and Factory Talk View components over Wonderware and Modicon components is acceptable granted the same functionality outlined in the specifications including but not limited to section 27 26 00 is met.
- 3.2.16 Question: WW Aquaculture Bldg:** Are the clay mixing drums provided by the owner? *Asked by: Nathan Hansen, DWA Construction, Inc. on 1/9/2024 3:07 PM MST.*
Response: Yes - Owner will provide clay-mixing drums.
- 3.2.17 Question: WW Aquaculture Bldg:** It looks like there are some tanks for the brine shrimp room. Will those be provided by the owner? *Asked by: Nathan Hansen, DWA Construction, Inc. on 1/9/2024 3:06 PM MST.*
Response: Yes - Owner will provide those tanks.
- 3.2.18 Question: WW Aquaculture Bldg:** There isn't any detail provided for the formalin distribution. Is this provided by the owner? *Asked by: Nathan Hansen, DWA Construction, Inc. on 1/9/2024 3:03 PM MST.*
Response: The formalin system is provided by the contractor. See spec 43 98 88 Formalin System and Drawing M209



- 3.2.19 Question: WW Aquaculture Bldg:** Will the early rearing tanks and incubation jars be provided by the owner? Asked by: Nathan Hansen, DWA Construction, Inc. on 1/9/2024 3:02 PM MST.
Response: Contractor to provide jars and early rearing tanks. The jars are McDonald Bell jars, direct supply from Pentair or Aquatic Ecosystems Inc. - see example attached. Early rearing tanks to be fiberglass. For sizing, see note on M206 and tank schedule on GM003. Fiberglass specs per Spec section 11 94 01. Early rearing tanks will just be the tanks themselves, each with a center standpipe and drain and a tube screen that fits over the standpipe; they will not need the self-cleaning systems identified for the rearing tanks. Early rearing tanks are supplied by Oceans Design or Hydro Composites, LLC. Oceans Design uses Gemini Fiberglass for the tank manufacturing. The incubation rack with headtank unit should be per the drawings. Oceans Design could likely supply the whole package.
- 3.2.20 Question: WW Aquaculture Bldg:** Sheet notes on M111 and M120 call for washed pea concrete walls. The structural details call for flowable fill rock to infill between side walls of bioreactors and grout. Please clarify. Asked by: Nathan Hansen, DWA Construction, Inc. on 1/9/2024 11:45 AM MST.
Response: Provide washed pea gravel to infill between side walls of bioreactors and concrete walls. Form vertical faces with low strength concrete. Cap pea gravel at slab with 4" of low strength concrete. Provide ¾" weep hole at base of vertical faces.
- 3.2.21 Question: WW Aquaculture Bldg:** The details on sheet A-511 note areas with stone or veneer. Where do they occur? Asked by: Nathan Hansen, DWA Construction, Inc. on 1/9/2024 10:58 AM MST.
Response: These are typical details; there is no areas having stone or veneer.
- 3.2.22 Question: WW Aquaculture Bldg:** The finish schedule calls for sealed concrete, but there are notes on the arch. detail pages for epoxy paint finish. Please clarify. Asked by: Nathan Hansen, DWA Construction, Inc. on 1/9/2024 10:37 AM MST.
Response: Provide epoxy paint finish at all sumps. Provide sealed concrete at all other exposed slabs, drains, and pits.
- 3.2.23 Question: WW Aquaculture Bldg:** Corner guards are called out on sheet A-102, but no specification or call out for materials or height of corner guards. Please provide. Asked by: Nathan Hansen, DWA Construction, Inc. on 1/9/2024 10:36 AM MST.
Response: Corner guards are to be a 2" x 2" by 4'-tall 304 stainless steel.
- 3.2.24 Question: WW Aquaculture Bldg:** Keynote 6.11 on sheet A-101 calls for black opaque vinyl slats on siding track and rail, but there is no detail or specification. Please provide. Asked by: Nathan Hansen, DWA Construction, Inc. on 1/9/2024 10:33 AM MST.
Response: See Detail D3/A-503
- 3.2.25 Question: Growout and Rearing Tanks:** Could you please clarify which tanks listed in the tank schedule provided on sheet 67 (GM003) are being provided by the fish hatchery? Asked by: Justin Broshear, COP Construction LLC, on 1/9/2024 10:28 AM MST.
Response: Grow-out self-cleaning tanks are Owner supplied. Fry collection tanks and jars are per (furnished and installed by) the contractor. MBBR tanks and chilled water tank are also provided (furnished and installed) by contractor.



- 3.2.26 Question: Press Lock Grating Vs Swage Lock:** Will press lock grating be allowed in lieu of swage lock grating? *Asked by: Justin Broshear, COP Construction LLC, on 1/9/2024 10:16 AM MST.*
Response: No - provide swage lock grating.
- 3.2.27 Question: WW Aquaculture Bldg:** It will likely be necessary to have cold joints in the concrete at elevation 99'-7" in preparation to pour the slab on grade. Will it be required to install waterstop at the cold joint? the only detail shows the waterstop at the lower elevations at the bottom of the pits/trench drains. *Asked by: Nathan Hansen, DWA Construction, Inc. on 1/9/2024 7:28 AM MST.*
Response: Water stops are not required for the slab cold joints at top of wall locations at tanks, pits, and drains.
- 3.2.28 Question: WW Aquaculture Bldg:** On wall type S6J, does the plywood run all the way to the deck? *Asked by: Nathan Hansen, DWA Construction, Inc. on 1/9/2024 7:25 AM MST.*
Response: Both areas with S6J have a hard-lid ceiling at ~9'-0"
- 3.2.29 Question: WW Aquaculture Bldg:** On sheet M001, there are two solid accumulation tanks called out, but no call out or specifications provided. Please provide. *Asked by: Nathan Hansen, DWA Construction, Inc. on 1/8/2024 4:07 PM MST.*
Response: For bidding purposes, the solids accumulation tanks shall be ParkUSA model SRT-(size as shown on plans)-G with bitimastic interior liner, mid and high level alarm float switches, 3-inch SS screened j-vent, and ParkUSA model DTB-CC Nema 4X FRP enclosure with audible and visual alarms.
- 3.2.30 Question: Dosing:** We assume theoretical dose will be acceptable here, as it is common for Aquaculture projects and no RED is outlined. Please confirm. *Asked by: Ken Van Sickle, VanCon Inc, on 1/5/2024 5:01 PM MST.*
Response: For bidding purpose, please use theoretical dose.
- 3.2.31 Question: Dimming:** Does 110% dimming mean we are to design the reactor to be able to pace above the 100 mJ/cm2 target? Please expound. *Asked by: Ken Van Sickle, VanCon Inc, on 1/5/2024 5:01 PM MST.*
Response: Please see UV specification. The 110% came from the manufacturer's recommendations - Trojan and SITA.
- 3.2.32 Question: Communication Protocol:** Is there a preference for any of the following communication protocols (CAN, Ethernet, USB, Modbus, TCP/IP)? We can do Ethernet, Modbus, or TCP/IP. *Asked by: Ken Van Sickle, VanCon Inc, on 1/5/2024 5:00 PM MST.*
Response: Modbus TCP, For Serial, also Modbus
- 3.2.33 Question: Flow Rate:** Is flow rate given in a separate portion of the specifications? It does not appear to be in section 46 66 13. Can that be provided? *Asked by: Ken Van Sickle, VanCon Inc, on 1/5/2024 5:00 PM MST.*
Response: For flow rate, refer to UV schedule on GM002.



3.2.34 Question: Oxygen Piping: There is oxygen piping identified on PL101 and UP-1 on the site. These drawings do not show the size or type of piping for the O2 system. The sections on M105 and M106 show 1" drops but do not clarify the pipe material. The specification section for oxygen piping is not found. Please provide the sizes of oxygen pipe mains and branches and the specifications for the O2 piping. *Asked by: Andrew Pratt, Stout Building Contractors, LLC. On 1/4/2024 9:23 AM MST.*

Response: For bidding purposes, the mainline (supply) line from the LOX tank to the WWAB is to be 2.5-inch diameter. Corrections are needed to some of the O2 pipe callouts on M105 and M106 for pipe material (pipe diameters are correct). Callouts should read 1"GOX (14), not 1"GOX (16). Material 14 is stainless steel. Spec section 40 23 16 covers the material. Also note, oxygen is showing on the process flow diagrams in the incubation room but not on the M sheets. A 1"GOX(16) line should be brought into the incubation room and feed the LHO there and also include a stub-out for future supply along above the incubation rack.

3.2.35 Question: Heat Exchanger Piping: There is a Heat Exchanger HX-1 next to the eyewash station. The plans show domestic water and a 3/4" drain to this heat exchanger, but no other piping is shown in the drawings. What equipment is to supply hot water to this heat exchanger? Where is the piping to be run? *Asked by: Andrew Pratt, Stout Building Contractors, LLC. On 1/3/2024 10:42 AM MST.*

Response: See M200 and M202 for continuation of piping. Water being used at eye wash is tapping off of water going to brine shrimp room. Hot water to the heat exchanger is supplied from a loop coming from Boiler B-302. See detail 2 on PL 501 for heat exchanger piping diagram.

3.2.36 Question: Pre-Bid: Can you post the pre-bid attendance sheet? *Asked by: Steve Quiroz, H. D. Fowler Company, on 12/26/2023 1:22 PM MST.*

Response: The sign in sheet was posted on 12.21.23 and can be found under Buy Attachments labeled Mandatory Meeting Attendance.