

SPIRIT LAKE FISH HATCHERY
UPGRADE TO RAS SYSTEM
DICKINSON COUNTY, IOWA
PROJECT NUMBER: 21-01-30-01

Date September 11, 2020

This Addendum is issued to modify, explain or correct the original Drawings and Specifications, and is hereby made a part of the Contract Documents. Please attach this Addendum to the Project Manual in your possession. Insert the number and issue date of this Addendum in the blank space provided on the Proposal Form.

Specifications:

1. Ignore all references to Deductive Alternates.
2. Section 26 24 19 – Motor Control Equipment, Part 1.1, A.: Add “2. Control Panels (duplex) for Walleye Reuse Pumps (WRP-1 & 2 and WRP-3 & 4 and WRP 5 & 6).
3. Section 26 24 19 – Motor Control Equipment: Add:
 - 2.4 CONTROL PANELS
 - A. Where control panels for walleye pumps are shown in the Drawings, they shall include:
 - a. NEMA 1 enclosure.
 - b. UL 508 listed industrial control panel.
 - c. Thermal magnetic circuit breaker for each pump with cover mounted disconnect operator for each pump.
 - d. IEC rated full voltage non-reversing motor starter with solid state ambient compensated thermal overload relay for each pump.
 - e. Hand-off-auto selector switches for each pump.
 - f. Green RUN indicator lights, push-to-test type.
 - g. Red flashing HIGH LEVEL ALARM indicator light, push-to-test type.
 - h. Fuse for protection of 120 VAC control circuit.
 - i. 600 volt rated terminals for field wiring of panel.
 - j. One non-resettable elapsed time meter for each pump.
 - k. One through the inner door overload reset pushbutton per pump shall be provided. Pushbutton shall allow the operator to reset the overload relay without opening the inner dead front door.
 - m. Duplex alternator including selector switch to change alternation of pumps from AUTO to PUMP 1 LEADS or PUMP 2 LEADS.
 - n. One set of unpowered “form c” contact for pumps shall be provided to indicate cumulative alarms.
4. Section 22 05 29 – Hangers and Supports for Plumbing Piping and Equipment, Replace Part 2.1, B. With “Indoor hangers and supports (including channel strut and channel strut accessories that UV and disc filter control panels shall be rack mounted from using stainless steel high post bases) that are not from ceiling and not in space under headtank shall be of stainless steel, aluminum, fiberglass, reinforced plastic or copper. Outdoors galvanized steel is also acceptable including fasteners. Fasteners indoors not from ceiling or in space under headtank shall be stainless steel.”
5. Delete Section 26 29 23 – Variable Frequency Drives – Low Voltage
6. Section 40 05 00 – Pipe and Fittings – Basic Requirements, Part 3.7: Change “SCH 80 PVC for Pumper Reuse Water (PR)” To “SCH 40 PVC for 3-inch-diameter Pumped Reuse Water (PR) except for flanges and valves and other sizes Pumped Reuse Water shall be SCH 80 PVC.”
7. Section 40 05 07 – Pipe Support Systems: Add “2.4 Materials of Construction: Same as Section 22 05 29, Part 2.1,

B. and addenda thereto.”

8. Section 40 05 31 – Pipe: Plastic

Part 2.3: Add “E. PVC duct in 12-inch-diameter size shall have thickness of 0.187 inches for desired weight minimization. PVC duct in 6-inch-diameter size shall be SCH 40.

Replace Part 2.4 With “Flexible PVC hose/pipe shall be SCH 40 and black or other non-white color and compatible with rigid SCH 40 PVC fittings. One source for required seamless length indicated in Drawings is 123Ponds.com”

Delete Part 3.4

9. Section 40 70 00 – Water Flow Meters, Part 2.1: Add “H. WM-8, 2” dia., 6-99 gpm or broader, eye level, pumped reuse to Esocids disc filter bank.”

10. Section 40 42 00 – Pipe Insulation

Replace Part 2.3 With “Provide UV resistant PVC jacketing over all pipe insulation.”

Delete Part 3.1, D.

Replace Part 3.2 Schedules, subpart A With “Pumped Reuse (PR) piping and Cold Water or City Water (CW) piping shall have ½ inch thick insulation. UV disinfection vessels and static mixers shall be insulated.”

11. Section 43 41 26 – Aquaculture Tanks & Hatching Jars:

1.1, A., 1.: Change “fry tanks, walleye fry tanks, musky fry tank(s), fry transfer tank(s), walleye reuse pump sumps” To “Three walleye fry tanks, one musky fry tank, two fry transfer tanks and three walleye reuse pump sumps.”

1.1,A., 1.: Delete “and hatching jars.”

2.4, A.: Change “Provide” To “DNR will provide.”

Plans:

1. Replace Sheet X-1 with attached Sheet X-1R.
2. Replace Sheet D-3 with attached Sheet D-3R.
3. Sheet S-2

Outside, south of the stairs, are two slabs shown to be removed and replaced on Sheet X-1. Replacement slabs shall be thickness to match existing (6” thick for bidding purposes) and shall be reinforced with #4 bars @ 6” O.C. each way, mid-depth. Dowel and epoxy grout bars 4” into adjacent slabs. Provide lean concrete/flowable backfill under slab in any areas that demolition leads to over excavation.

Cut and patch &/or core drill concrete in places indicated on D-2 (including addenda to D-2) and per D-3R.

4. Sheet S-6: Three Walleye Jar Racks are required.
5. Sheet D-2

On the pit west wall, across from each of the three walleye reuse sump pumps, provide manhole steps.

OW pipe in 3-inch-diameter size is labeled with “SLOPE” inside the old west-east running trench drain. It shall instead be level. Its crown will be about 3.5” BFF. The top of the 8” thick reinforced concrete pit wall and the reinforced 6” thick concrete floor between the west end of the trench drain and the pit where the 3” OW is shown shall be removed and replaced as needed for the pipe. Backfill shall be lean

concrete/flowable fill. Core drilling is an acceptable alternative.

6. Sheet D-4R

Demister foam for aeration columns shall be open cell reticulated poly of 20 or 30 pores per inch and free of germicides and fire retardants and shall be 1" thick such as Pentair Part PF7 or equal by Clark Foam Products.

Polyethylene loose packing media for aeration columns can also be polypropylene. Sources include Pentair BioBarrels BF44A and EasyPro Pond Products Bio-Balls and Koch-Glitsch.

7. Sheet D-5

Plan 1 & Detail A: Overflow and drain piping shall be 3" dia., none 4" dia.

Plan 1 & Detail B: No 3" PRW or 3" CWS is required. Instead provide 6" dia. aeration columns fed by 2" PR similar to B/D-4R.

8. Sheet E-1

Near GFCI receptacles at west end of three walleye jar racks, replace Key Note 5 with 6.

Replace WRP duplex VFD panels with duplex motor starter control panels. Combination motor starters shall be full-voltage, non-reversing with lead/lag operation.

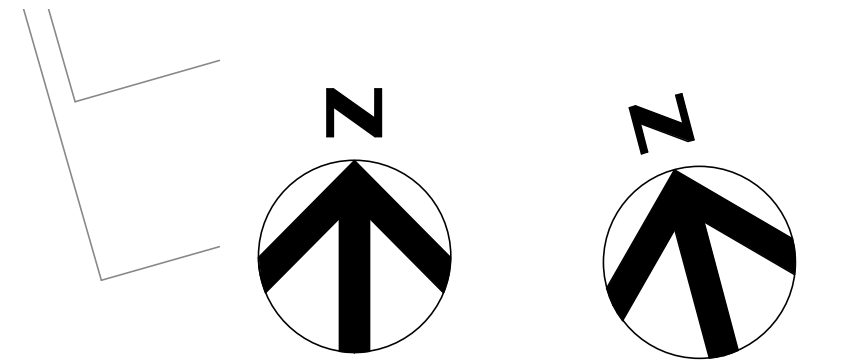
Revise Key Note 4 to indicate a remote on/off selector switch. Re-locate instruments to be mounted on the west ends of the three walleye jar racks. Coordinate with Owner on exact location.

Move TP-4 east onto masonry wall beside double door.

9. Sheet E-2, One Line Diagram: WRP's shall be 3 HP and have FVNR combination motor starters, not VFD's.

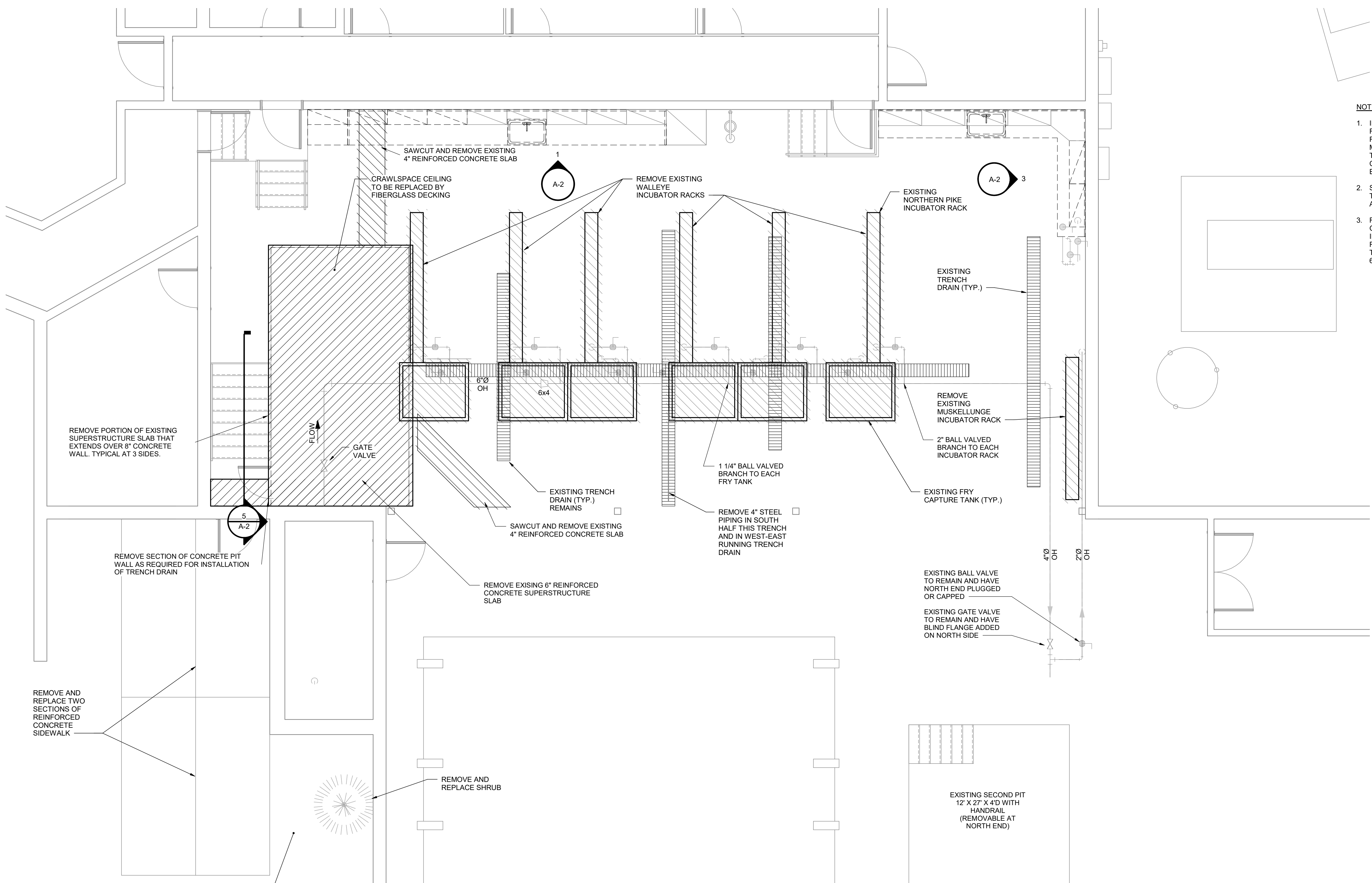
10. Sheet E-3:

Pumps shall be controlled by On/Off/Auto combination motor starters. Remove VFD's and associated speed control instrumentation. Retain all float control functionality, indicator lights, and run-time meters. Include duplex alternator controller to provide lead/lag operation. Alternator shall automatically detect pump failure and switch to other pump. Pumps shall restart automatically upon loss of power. Refer to Specification Section 26 24 19 – Motor Control Equipment. Replace remote speed control device with remote On/Off selector switch, one for each pump.



NOTES:

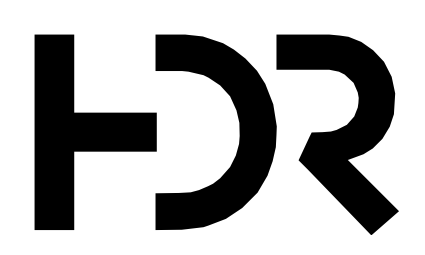
1. INCUBATOR RACKS ARE STEEL AND THEIR STEEL FRAMES SHALL BE CUT INTO TWO PIECES AS REQUESTED BY HATCHERY MANAGER AND MOVED TO THE EXISTING SECOND PIT. THE TROUGHS OF THE INCUBATORS AND THE FRY CAPTURE TANKS SHALL BE MOVED TO THE EXISTING SECOND PIT.
2. SEE ALSO SHEET D-1 (INCLUDING ANY ADDENDA THERETO) FOR OTHER CONCRETE REMOVAL ADJACENT TO EAST SIDE OF CRAWL SPACE.
3. REMOVE ALL PIPING SHOWN DOWNSTREAM OF 6" GATE VALVE. OH = OVERHEAD PIPING WHICH IS INSTALLED AND INSULATION SHALL BE REMOVED. OFFER PIPE, VALVES, AND HANGERS TO HATCHERY MANAGER. BLIND FLANGE PIPE AT 6" GATE VALVE. PIPE IS SCH 80 PVC.



DEMOLITION PLAN

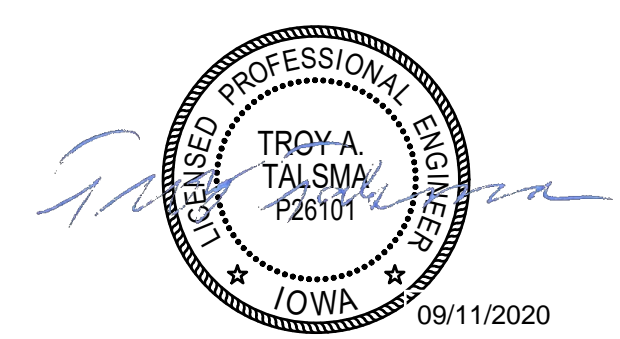
1/4" = 1'-0"

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ISSUE	DATE	DESCRIPTION
C	09/11/2020	ADDENDUM 2
A	08/21/2020	ISSUED FOR BID

PROJECT MANAGER	M. COCHRAN
ARCHITECTURAL	M. STOFFEL
STRUCTURAL	B. BRADLEY
PROCESS	T. TALSMA
ELECTRICAL	A. KANER
PROJECT NUMBER	10232924



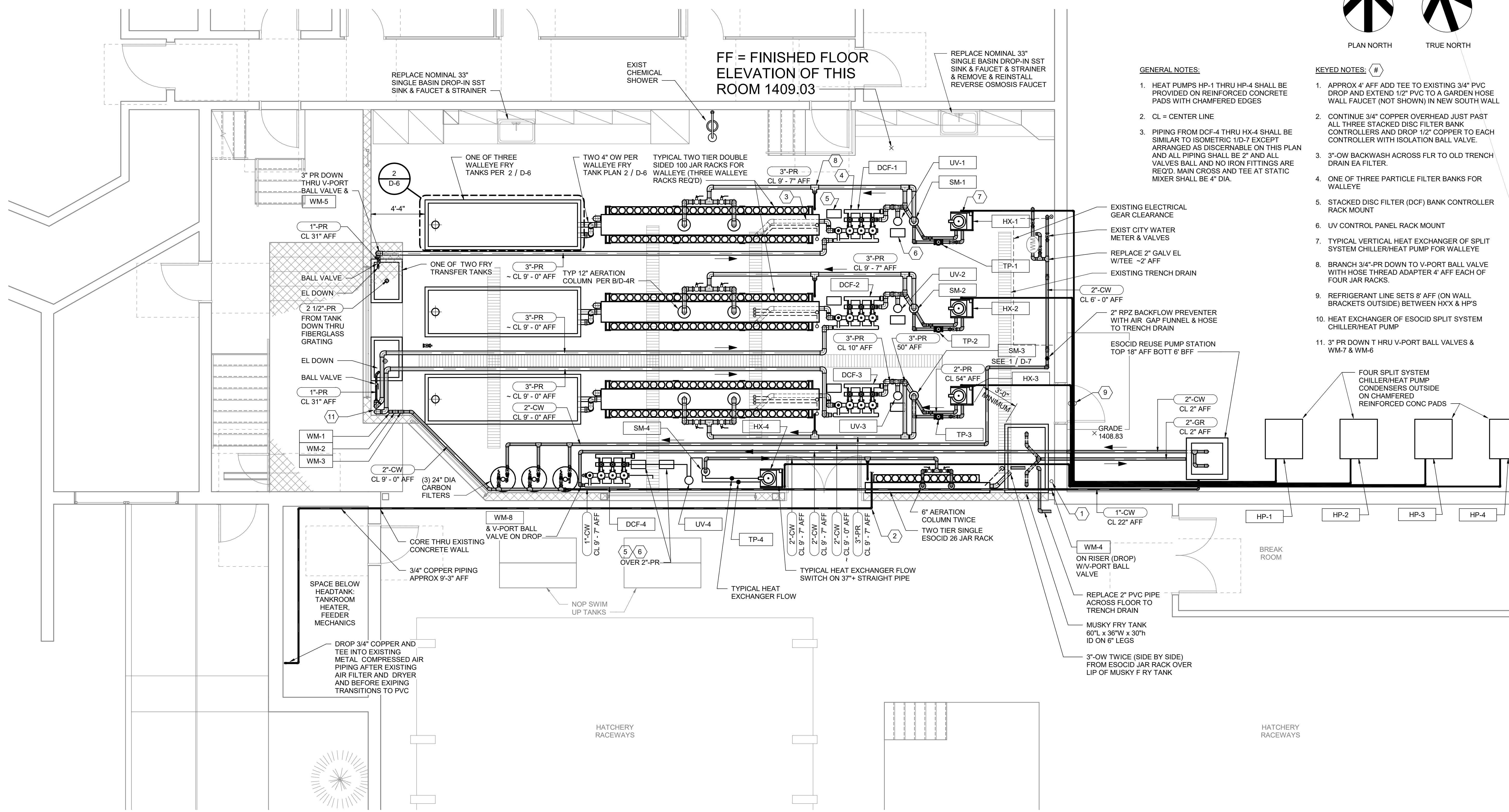
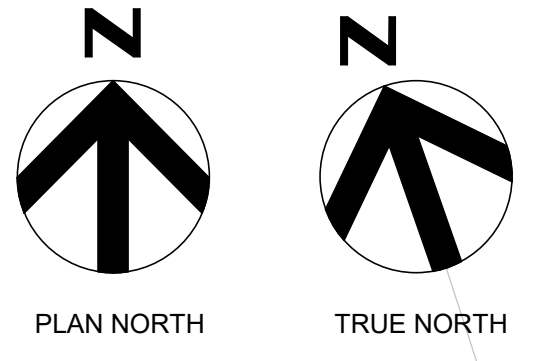
Spirit Lake Fish Hatchery Upgrade for RAS

PARTIAL FLOOR PLAN - DEMOLITION

FILENAME | HDRE_ALL_DISCIPLINES.rvt

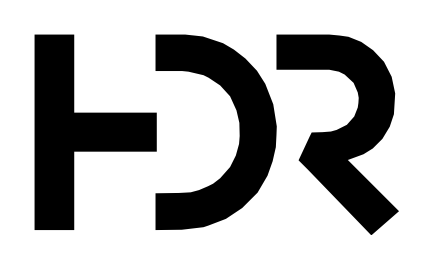
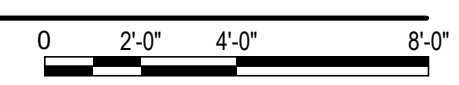
SCALE | 1/4" = 1'-0"

SHEET | **X-1R**



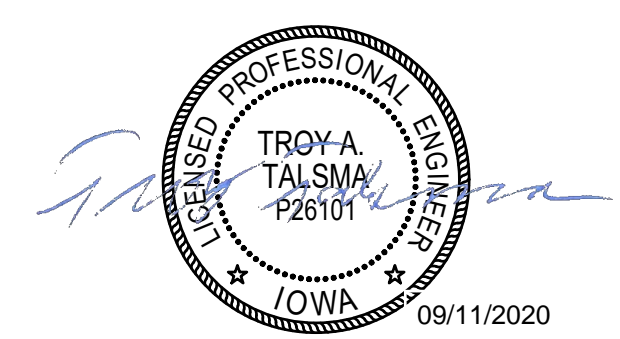
- GENERAL NOTES:**
- HEAT PUMPS HP-1 THRU HP-4 SHALL BE PROVIDED ON REINFORCED CONCRETE PADS WITH CHAMFERED EDGES
 - CL = CENTER LINE
 - PIPING FROM DCF-4 THRU HX-4 SHALL BE SIMILAR TO ISOMETRIC 1/D-7 EXCEPT ARRANGED AS DISCERNABLE ON THIS PLAN AND ALL PIPING SHALL BE 2" AND ALL VALVES BALL AND NO IRON FITTINGS ARE REQD. MAIN CROSS AND TEE AT STATIC MIXER SHALL BE 4" DIA.
- KEYED NOTES: #**
- APPROX 4" AFF ADD TEE TO EXISTING 3/4" PVC DROP AND EXTEND 1/2" PVC TO A GARDEN HOSE WALL FAUCET (NOT SHOWN) IN NEW SOUTH WALL
 - CONTINUE 3/4" COPPER OVERHEAD JUST PAST ALL THREE STACKED DISC FILTER BANK CONTROLLERS AND DROP 1/2" COPPER TO EACH CONTROLLER WITH ISOLATION BALL VALVE.
 - 3"-OW BACKWASH ACROSS FLR TO OLD TRENCH DRAIN EA FILTER.
 - ONE OF THREE PARTICLE FILTER BANKS FOR WALLEYE
 - STACKED DISC FILTER (DCF) BANK CONTROLLER RACK MOUNT
 - UV CONTROL PANEL RACK MOUNT
 - TYPICAL VERTICAL HEAT EXCHANGER OF SPLIT SYSTEM CHILLER/HEAT PUMP FOR WALLEYE
 - BRANCH 3/4"-PR DOWN TO V-PORT BALL VALVE WITH HOSE THREAD ADAPTER 4" AFF EACH OF FOUR JAR RACKS.
 - REFRIGERANT LINE SETS 8" AFF (ON WALL BRACKETS OUTSIDE) BETWEEN HXX & HPS
 - HEAT EXCHANGER OF ESOCID SPLIT SYSTEM CHILLER/HEAT PUMP
 - 3" PR DOWN THRU V-PORT BALL VALVES & WM-7 & WM-6

ABOVE FLOOR PLAN
1/4" = 1'-0"



ISSUE	DATE	DESCRIPTION
C	09/11/2020	ADDENDUM 2
A	08/21/2020	ISSUED FOR BID

PROJECT MANAGER	M. COCHRAN
ARCHITECTURAL	M. STOFFEL
STRUCTURAL	B. BRADLEY
PROCESS	T. TALSMAN
ELECTRICAL	A. KANER
PROJECT NUMBER	10232924



Spirit Lake Fish Hatchery Upgrade for RAS

PROCESS PLAN ABOVE FLOOR

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SCALE 1/4" = 1'-0"

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