

**AMENDMENT 1
TO
TASK ORDER NO. 1
FOR
MASTER AGREEMENT FOR PROFESSIONAL SERVICES**

OWNER: PAYSON CITY

Effective Date of MASTER AGREEMENT: January 11, 2021

AMENDMENT 1 to TASK ORDER NO. 1 ("this AMENDMENT") for the PAYSON CITY MASTER AGREEMENT FOR PROFESSIONAL SERVICES (AGREEMENT) is made and entered into as of March 2, 2023, by and between OWNER and Forsgren Associates, Inc. (herein called ENGINEER) who agree as follows:

1. **PROJECT.** The PROJECT associated with this AMENDMENT is described as follows: Design and CM/GC Selection Services for the Wastewater Treatment Plant Expansion and Upgrade.
2. **PROJECT SITE.** The PROJECT SITE is located as follows: Payson WWTP, 1062 N Main St, Payson UT 84651.
3. **SCOPE OF SERVICES.** The scope of services associated with this AMENDMENT are attached hereto.
4. **FEES.** OWNER shall reimburse for services provided under this AMENDMENT for the amounts described in the scope of services. Payment shall be in accordance with the original TASK ORDER and in accordance with the AGREEMENT.
5. **SCHEDULE.** The SERVICES associated with this AMENDMENT are anticipated to be completed as shown on the schedule included in the scope of services.
6. **ATTACHMENTS AND EXHIBITS.** Both parties have read and understood all attachments and exhibits referenced in or attached to this AMENDMENT and agree that such items are hereby incorporated into and made a part of the AGREEMENT.

IN WITNESS WHEREOF, OWNER and ENGINEER have executed this TASK ORDER as of the date first above written.


OWNER:

By: _____

Printed Name: _____

Title: _____

ENGINEER:

By: 

Printed Name: JASON BROOME

Title: DIVISION MANAGER



March 2, 2023

Travis Jockumsen, PE
Public Works Director/City Engineer
Payson City
439 West Utah Ave
Payson UT 84651

RE: WWTP Upgrade and Expansion
Amendment No. 1 to Design Contract (Task 1)

Travis:

We have enjoyed working with you and your team on the major upgrade project for the WWTP. As we have discussed over the past few months, the design scope has changed significantly from what was originally scoped during the proposal process in December 2020. We are requesting a contract amendment to address these changes.

This amendment request is based on the following major points:

- The scope of the project is much larger: As presented to the council in January 2022, there have been many changes to processes and buildings and the project scope is much larger than outlined in the original proposal. The drawing set sheet count has risen from the original estimate of 294 sheets to a current estimate of 500 sheets, which is a 70% increase. The changes are due primarily to increases in design flows and loadings, designing buildings to facilitate better operation and maintenance, designing processes to meet future potential discharge limits with minimal changes, and setting up the plant for easier expansion in the future. See the attached supplemental information document for a discussion of each unit process and building.
- The design effort and schedule have increased: The preliminary design phase took much greater effort since the previous planning study did not adequately address the scope needed for the project. Additional sampling and testing were needed to develop the final design criteria, each unit process had to be modified to meet the new design criteria, equipment candidates reviewed and site visits taken to review equipment installations, and equipment selected prior to starting final design work.
- Labor costs have changed: Our cost of labor has changed dramatically over the past two years due to inflation.

Based on these scope changes, the design effort required for the project has greatly increased. Also, an additional task is needed to allow for review of submittals for the pre-purchased equipment and other items (which would normally be accomplished during construction). Therefore, we propose the following modifications and additions to the contract.

TASK	DESCRIPTION	ORIGINAL CONTRACT TOTAL	AMEND. 1 TOTAL	NEW CONTRACT AMOUNT
100	Attend Kickoff Meeting and Collect Existing Information	\$16,000	\$0	\$16,000
200	Amend Capital Facilities Plan	\$26,600	\$0	\$26,600
300	Survey Site and Prepare Base Mapping	\$18,000	\$0	\$18,000
400	Assist with Easement Acquisition and Permitting	\$31,100	\$0	\$31,100
500	Prepare Preliminary Design Report	\$508,000	\$0	\$508,000
600	Assist with Const. Manager/General Contractor Selection	\$68,300	\$0	\$68,300
700	Prepare Design Drawings and Specifications	\$1,198,500	\$1,157,900	\$2,356,400
800	Provide Project Management During Design	\$61,200	\$94,200	\$155,400
900	Equipment Submittal Reviews	\$0	\$122,900	\$122,900
	TOTAL COST	\$1,927,700	\$1,375,000	\$3,302,700

The attached supplemental information document provides details on these values and various measurement comparisons. In summary:

- The amended budget is very reasonable when compared with our original budget and scope, and when compared with industry standards.
- We continue to provide a high level of service, as evidenced by the number of sheets in the drawing set.
- We continue to strive to keep engineering costs low while providing this high level of service and an excellent overall design.

The schedule for completing the design work is as follows:

- Submit 90% Design Package: April 7, 2023
- Submit 100% Design Package: July 7, 2023

Please don't hesitate to contact me if you have any questions or comments. We look forward to continuing our work with you and successfully completing this important project.

Sincerely,



Jason Broome, PE
Salt Lake City Division Manager

**Payson WWTP Upgrade and Expansion
Design Services Contract Amendment Supplemental Information**

1. Review of hours

- a. The table below shows information about the hours for the design work.

Original Contract Hours	12,894
Additional Hours in Proposed Amendment	7,505
Total Proposed Hours	20,399
Hours Used Through 1/25/23	12,226
Average Number of People that will be Working on Project	19
Avg Hours per Person per Month	85
Months	5
Hours to be Used for Remaining Design	8,075
Total Hours to be Used	20,301

2. Comparison of design budget versus percent of construction

- a. Industry standard: The standard industry target is for the design budget of treatment plant projects to be about 10% of the expected construction cost. Our experience is that 10% is needed to provide a reasonable budget for the complexity involved in design of treatment plants.
- b. Our original contract as estimated during the proposal stage was 7.6% (\$1.9M design / \$25M construction).
- c. Our total contract with the proposed amendment is 4.6% based on the contractor's current cost estimate (\$3.2M design / \$70M construction).
- d. For comparison to a recent past project, Forsgren's design for the Salem WWTP was 6.0% (\$0.9M design / \$15M construction).
- e. For an additional comparison, we can look at the State of Utah's DFCM guidelines (published in 2022), which indicates 6.73% design fee for high complexity and \$50M+ cost.

3. Comparison on a cost per sheet basis

- a. The original contract (January 2021) had a cost of \$6,500/sheet, based on the design cost of \$1.9M and an estimated 294 sheets.
- b. The cost per sheet with the proposed amendment is \$6,400/sheet, based on \$3.2M and an estimated 500 sheets.

4. Comparison of increase in hours with increase in design cost

- a. The increase in hours estimated for design work is 70%, based on 12,000 hours in the original contract and 20,400 hours with the proposed amendment.

- b. The increase in the design budget is 68%, based on the original contract of \$1.9M and the budget with the proposed amendment of \$3.2M.

5. Additional information about changes to each building/process

- a. New Headworks Building: The original scope was to upgrade and add to the existing Headworks Building. After updating the design criteria and reviewing the condition of the existing building, it was decided to construct a new Headworks Building to completely replace the existing building.
- b. New Influent Pump Station: This was included in the original scope, but the size of the pump station has been increased to better accommodate future expansion.
- c. New Anaerobic Tank: This was included in the original scope, but the size of the tank station has been increased to better accommodate future expansion.
- d. New Oxidation Ditch: This was included in the original scope, but the size of the tank and number of aerators has been increased. The increase is necessary to meet the higher loads found during early design and to meet the future phase 2 design criteria.
- e. New Secondary Clarifiers: The original scope included one new secondary clarifier, but this was changed to two new clarifiers during preliminary design due to a review that determined that the old clarifier is not suitable for use in the future.
- f. New RAS Pump Station: The original intent was to reuse the existing RAS pump station. It was decided during preliminary design to replace the pump station to better accommodate the new clarifiers, have space for an increase in the number of WAS pumps, and provide provisions for the future phase 2 expansion.
- g. New Scum Pump Station: With the change in the number of clarifiers, a new Scum Pump Station was added.
- h. Chemical Feed Building: This was originally intended to be a new building, but has changed into a remodel of the existing Sludge Dewatering Building.
- i. Effluent Filtration Building: While replacement of the filtration system was in the original scope, the structural modifications required for the building have changed and now include replacement of the roof structure to allow for installation of the filter units and to help with maintenance.
- j. UV Disinfection Building: There is no significant change to the scope of the upgrades to this building.
- k. Reuse Pump Station and Tank: The original scope included minor modifications to this building. The scope has significantly changed and now includes design of a second tank, replacement of tank feed pumps, and a new power plant feed pumps system.
- l. Sludge Holding Tanks/Digester Building: There is no significant change to the scope of the upgrades to this building. Design on these improvements were completed through 60% design, but will not be designed further since they will not be included in the 90% design set.

- m. New Sludge Blower Building: The blowers were originally intended to go in the existing Digester Building, but there is not enough space. Therefore, a new building has been added for the blowers. Design on these improvements were completed through 60% design, but will not be designed further since they will not be included in the 90% design set.
- n. New Sludge Dewatering Building: New dewatering equipment was originally intended to go into an expanded version of the existing Sludge Dewatering Building, but upon review it was determined that a new building is required.
- o. New Plant Drain Pump Station No. 2: This is a new pump station required to serve the new Sludge Dewatering Building.
- p. New Odor Control Tank: The odor control system was not included in the original scope, but was determined to be necessary.
- q. New Electrical Building: A new Electrical Building was not called out in the original scope, but was determined to be necessary.
- r. New Water Department Building: This was not included in the original scope, but is required so that the existing Water Department Building can be removed to make room for the new Secondary Clarifiers.
- s. Sitework and Yard Piping: Much more extensive site and yard piping design are required to accommodate the expanded project scope.
- t. Electrical and Controls: Much more extensive electrical and controls design are required to accommodate the expanded project scope.