

Moroni City Corporation

PO BOX 870 Moroni Utah 84646

(435) 436-8359 cityhall@moronicity.org



Mayor Paul Bailey

Moroni City Council Meeting

August 22, 2023

NOTICE OF AGENDA

NOTICE IS HEREBY GIVEN that the Moroni City Council will hold a Special City Council meeting Tuesday, August 22, 2023, beginning at 12:00 p.m. The meeting will be held at the Moroni City Community Center, 80 South 200 West.

1. **12:00 p.m. Welcome**
 - Motion to start meeting
 - Roll call of Council members

2. **Sunrise Engineering * Change Order #2**
Moroni City Culinary Well Improvements Project – Valve Replacements
Motion:

3. **Full Spectrum Engineering * SCADA System Proposal**
Motion:

4. **Invoices associated with pay request #14 – Culinary Water Project**

Sunrise Engineering	Invoice 0136050	\$24,131.03
Terry R Brotherson Excavating	Invoice 5077	\$516,541.54

Motion:

5. Adjourn
Motion

NOTE: The agenda is a guide and may change; items may be discussed or voted on out of order at the discretion of the Mayor.

No decisions may be made during this meeting if the item is not specifically on the agenda.

I, Carol Haskins, the duly appointed and acting Recorder/Clerk for the City of Moroni, hereby certify the copies of the above stated agenda were posted at that Moroni Community Center, 80 South 200 West and the Utah Public Notice website.

<https://utah.gov/pmn/index.html>

Carol Haskins, Recorder

In compliance with Section 504 of the Rehabilitation Act of 1973 in regards to the American Disability Act (ADA) of '91, individuals needing accommodations (including auxiliary aids and services) during this meeting notify the Moroni City Recorder/Clerk at least three (3) days prior to this meeting.

Sunrise Engineering
Culinary Water Improv. Project * Change Order #2
Valve Replacements

CONTRACT CHANGE ORDER					ORDER NO. 2	
CONTRACT FOR: Moroni City Culinary Well Improvements 2021					DATE: 8/15/2023	
OWNER: Moroni City						
CONTRACTOR: Terry R. Brotherson Excavating, Inc.						
You are hereby requested to comply with the following changes from the contract plans and specifications. The following Bid Items will be revised on the Contractor's Bid Schedule						
Bid Item	Description of Changes (Supplemental Drawings & Specifications Attached)	Qty	Unit	Unit Price	Decrease in Contract Price	Increase in Contract Price
1	Mobilization	1	LS	\$ 7,167.87	\$ -	\$ 7,167.87
15(a)	Bituminous Surfacing 3" - Valve Replacements	100	S.Y.	\$ 87.40	\$ -	\$ 8,740.00
69	6" Gate Valve Installation	9	EA	\$ 7,959.20	\$ -	\$ 71,632.80
70	8" Gate Valve Installation	29	EA	\$ 9,262.61	\$ -	\$ 268,615.69
71	12" Gate Valve Installation	2	EA	\$ 13,054.52	\$ -	\$ 26,109.04
72	Abandon Gate Valve	21	EA	\$ 250.00	\$ -	\$ 5,250.00
TOTALS					\$ -	\$ 387,515.40
NET CHANGE IN CONTRACT PRICE						\$ 387,515.40
Change Order initiated by: Moroni City						
JUSTIFICATION: The existing water system valves do not isolate sections of the city reliably. This change order hereby adds gate valves strategically around the city in order to isolate the system more effectively. Contract days are hereby increased to account for this work, 5 days for unexpected delays while excavating along 100 South near 300 West, 1 day for a conflict on 100 W near Juanita's Mexican Restaurant, and 1 day for the tie-in at 100 S 100 W.						
The amount of the Contract will be increased/ ~~decreased~~ by the sum of:						\$ 387,515.40 DOLLARS
The Contract total prior to this change order is:						\$ 4,144,018.09 DOLLARS
The Contract total including this and previous change orders will be:						\$ 4,531,533.49 DOLLARS
The Contract period provided for completion will be-(increased)(~~decreased~~)(~~unchanged~~) by:						82 Days
New Completion date:						December 19, 2023
This document will become a supplement to the Contract and all provisions will apply thereto.						
Requested (OWNER) _____				Date: _____		
Recommended (PROJECT MANAGER)  _____				Date: 8/15/2023		
Accepted (CONTRACTOR) _____				Date: _____		

CHANGE ORDER #2

The following shall be added to Section 15230.3 of the Specifications:

15230.4.3.5 ABANDON GATE VALVE

Where noted, the existing gate valve shall be abandoned in place. Abandonment of the indicated gate valve shall consist of the following operations: Excavation to expose the valve box, removal of the valve box, backfill the excavation per the requirements in these specifications and information presented in the Drawings.

The following shall be added to Section 15230.4 of the Specifications:

15230.4.4 GATE VALVE INSTALLATION

Excavation, foundation preparation, restraint devices, valve boxes, backfill, untreated base course, drain rock and other miscellaneous devices, materials, or equipment required for installation shall be considered part of, and included in, the measurement of all valves and valve assemblies. Bituminous surfacing shall be paid separately when required. The measurement shall be determined by counting the number of each size and type of valve installed and accepted (including restraints, any required fittings excluding connections to existing tees or crosses, associated valve box and concrete valve box collar).

15230.4.5 ABANDON GATE VALVE

Excavation, removal of valve boxes, removal of concrete collars, backfill, untreated base course, drain rock and other miscellaneous devices, materials, or equipment required for abandonment of gate valves shall be considered part of, and included in, the measurement of all valve abandonments. Bituminous surfacing shall be paid separately when required. The measurement shall be determined by counting the number of each size valve abandoned.

Section 15230.5 of the Specifications shall be replaced with the following.

15230.5 BASIS OF PAYMENT

The accepted quantities will be paid for at the contract unit price.

PAY ITEM	UNIT
(Size) Gate Valve Installation	Each
Abandon Gate Valve	Each

Terry R. Brotherson Excavating, Inc.

PO Box 158

Mt. Pleasant, UT 84647

Phone: 435-462-5380

Fax: 435-462-3745

Email: jade.trbexc@gmail.com



Date: 7/18/2023

Bid Title: Moroni Change Order (Valves) 2

Submitted To:

Address:

Bid Number:

Contact:

Project Location:

Phone:

Project City, State:

Fax:

Engineer/Architect:

E-mail:

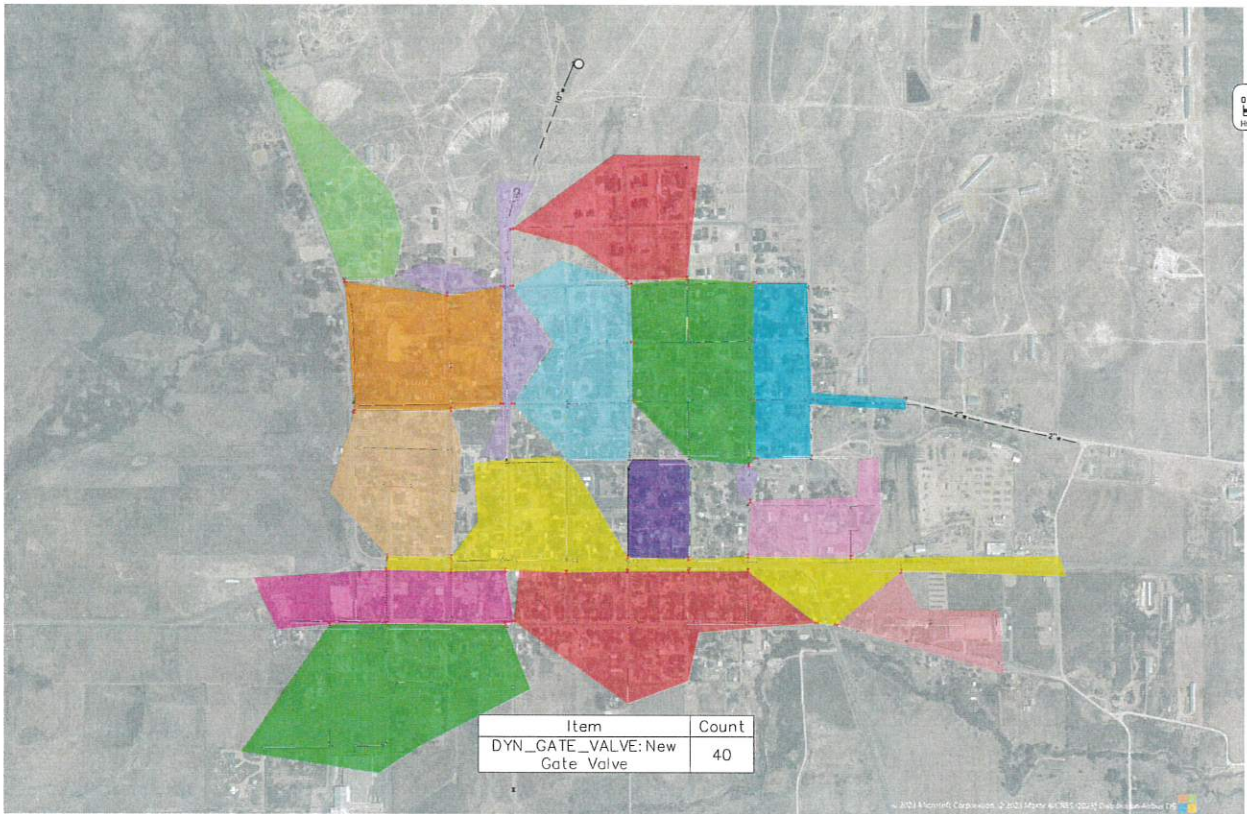
Item No.	Item Description	Estimated Qty	Unit	Unit Price	Total Price
1	MOBILIZATION •Added Bond Cost - \$4167.87 •Asphalt Subcontractor Mobilization - \$3000.00	1	LS	\$ 7,167.87	\$ 7,167.87
2	ASPHALT 3"	100	SY	\$ 87.40	\$ 8,740.00
3	6" GATE VALVE INSTALLATION	9	EA	\$ 7,959.20	\$ 71,632.80
4	8" GATE VALVE INSTALLATION	29	EA	\$ 9,262.61	\$ 268,615.69
5	12" GATE VALVE INSTALLATION	2	EA	\$ 13,054.52	\$ 26,109.04
6	ABANDON GATE VALVE	21	EA	\$ 250.00	\$ 5,250.00
7	EXTRA DAYS (Material is 5 weeks out)	75	DAY		

Total \$ 387,515.40

Notes:

- This contract is subject to price changes due to unstable fuel and material costs. Buyer agrees that increases in these items are cause for adjustment to the contract.
- Quote is good for 30 days, after which, quote is void.
- **Exclusions:** Unless otherwise noted, price **excludes** bonds, permits, licenses, fees, engineering and traffic control. Price includes valve, valve box, dressors and restraints.

ACCEPTED: The above prices, specifications and conditions are satisfactory and are hereby accepted. Buyer:	CONFIRMED: Terry R. Brotherson Excavating, Inc. Authorized Signature:
Signature:	Estimator: Scott Brotherson
Date of Acceptance:	



MORONI CITY

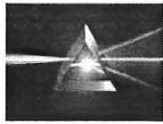
VALVE REPLACEMENT LOCATIONS



831 NORTH ROAD, SUITE 675
 RICHFIELD, UTAH 84701
 TEL: 435.894.8837
 WWW.SUNRISE-ENG.COM

**Full Spectrum Engineering
Culinary Water Improvements Project
SCADA System Proposal**

**Full
Spectrum Inc.
Engineering**



August 18, 2023

Moroni City
80 South 200 West
Moroni, UT 84646

Attention: Brennen Russel, Water Department Superintendent

Reference: **New Water Tank/New Well SCADA System Upgrades**

Proposal: 20230801Rev:20230818:

Dear Mr. Russel:

As per the City's request Full Spectrum Inc. Engineering is pleased to provide the following proposal to upgrade the SCADA System on your water systems, including The New Well, the New Tank, The existing wells and the irrigation pond systems.

Item #1 Upgrade the water office computer (Software and Program): \$16,300

The water office has a computer that is currently running windows 7. Windows 7 is no longer supported after January 1, 2020. This upgrade would require new HMI (human machine interface) SCADA (supervisory control and data acquisition) software and programing, and both are included in the cost. The city will need to provide a new computer with Microsoft Office Professional to allow upgraded reporting functionality.

Note HMI Computer: Typically, we are recommending the HMI computer be a laptop not a desktop. The laptop will continue to operate during power outages, etc. and the laptop can be in the clean SCADA MTU panel to avoid inadvertent use and access to the SCADA system.

Item #2 Upgrade the water office MTU: \$7,200

The existing MTU (master terminal unit) is currently mounted on the wall in the northwest corner of the water office. The MTU PLC facilitates communications between all sites thus eliminating the computer and HMI as a critical operational component. The HMI computer allows the monitoring of the system and the changing of system setpoints, if the SCADA computer becomes inoperable, the system and MTU PLC would continue to operate according to the last provided setpoints. Etc.

A new enclosure will be mounted on the wall (in the same MTU location) to house the new MTU equipment. The new equipment will include a new PLC and a new callout device to facilitate emergency callouts. The MTU PLC will be programed to handle emergency call outs as well as any multi-site operational functionality, such as Well #2 blending control, so that these critical operations are performed regardless if the SCADA computer is functioning.

A new battery backup panel and battery will also be installed in the MTU location typically below the MTU panel.

The MTU panel will need both a land phone line and ethernet internet connection to facilitate call outs and remote access to the SCADA system.

There are currently two radios, and two radio networks, that the existing SCADA system uses. The two networks have been maintained to allow a stepped upgrade, from old to new, of the existing RTU sites. The antenna pole and antenna located on the northwest corner of the water office building will be used for the new SCADA system and once completed all sites will be on one network.

Item #3 New Well #4 SCADA RTU: \$13,430

As part of this project a new SCADA control panel will be mounted on the wall in the water house building. This panel would contain a PLC (Programable Logic Controller). The PLC would also monitor the tank level at the tank site via radio telemetry communications and turn the well on and off based on setpoints. The PLC can monitor the following if available at the site:

		Well VFD
DI	(Hand)-Off-Auto	Yes
DI	Hand-off-(Auto)	Yes
DO	Run Command	Yes
DI	Runback	Yes
DI	Fault	Yes
AI	Well Flow	Yes (Required)
AI	Well Water Level	Yes (if available) optional
AI	System Pressure	Yes (if available) optional
AI	Speed Feedback	Yes (if available)
AO	Speed Control	Yes (if available) (4-20 ma)
DI	Power On	Yes
	Other Items?	Optional

The PLC could also monitor the following: floor high water, well room door, chlorine room door, well discharge pressure, flow to waste, flow to system, well water level, chlorine leak, chlorine bottles 1 and 2 Weight, and well flow. If the flow meter is equipped with a pulse output or a 4-20 milli amp output, then this pulse, or flow signal, could also be added in and the PLC programed to monitor total flows (Kgallons) for the meter as well as current flows gpm.

As part of this proposal Full Spectrum Inc. will provide the SCADA control panel and all equipment located inside the panel. Others are to provide all field instrumentation as detailed on the drawings, and a flow meter, including the mounting of the SCADA Panel, all conduits, all wiring outside the SCADA panel, shall be ran to the SCADA panel, Full Spectrum Inc. will terminate/land the wiring inside the panel.

The PLC would monitor tank level and communicate tank level information to the well. On/Off set points based on tanks levels would be programed into the SCADA system. This well PLC would be programed to allow water blending with the other wells as needed.

A radio antenna mast (10 foot) shall be mounted to the top of the new building (By the general or Electrical Contractor) and an antenna will be mounted atop the mast (By the SCADA Provider) and will be directed towards Water Office building. The antenna, and appurtenant cable are included in the scope of work here in proposed.

When the system is in Auto the PLC would monitor the tank level via radio communication and turn the well on/off as required including day and night set points for power savings.

Well Note (Typical for all well sites): SCADA systems provide high level supervisory control not safety and interlock control. For example, If a well needs to flow to waste before flowing into the water system, or if a well needs to remain off for 5 minutes when turned off to allow for back spin and prevent damage, or the closure or opening, of the flow to waste valve needs to occur slowly to prevent system spikes, or a minimum VFD speed (such as 42 hz) is required to prevent pump damage. This functionality should be handled in the pump control panel not the SCADA panel. The pump control panel should be equipped with a Hand Off Auto switch. Hand allows the pump to be operated regardless of if the SCADA system is functioning. The Hand functionality is critical for emergency operations should SCADA system failure occur. The Auto position allows the SCADA system to control the pump. Off guarantees the pump remains off regardless of the SCADA system signals. If the pump is a VFD a local speed pod should be included on the pump control panel that sets the speed of the pump when in hand. If the VFD drive supports SCADA 4-20 ma (0-100%) speed control, then the drive can be wired to allow the SCADA system to control the speed when the drive is in "AUTO". All safety interlocks shall be handled in the pump drive, so they occur regardless of if the pump is controlled in HAND or AUTO. Also, in the I/O table above points such as Fault or Runback are listed but the pump control panel may not have this functionality and as such this data may or may not be available to the SCADA systems.

Typical PLC is a Beijer BCS-XP315 (or xp340) Typical Radio is a Schneider Electric TRIO-K-series KP900

Item #4 Existing New Tank (Booster station) SCADA RTU: \$13,430

As part of this project, the control panel mounted on the wall in the existing booster building will be used to house the new SCADA equipment. This panel would contain a new PLC (Programable Logic Controller) and new communications radio. The PLC would monitor tank level and communicate tank level information to the new well and the existing wells.

This system herein proposed replaces all SCADA control components located in the booster building.

Included Items:

- 1> Identify and label all existing I/O wiring in existing SCADA panel.
- 2> Remove all existing equipment from SCADA panel.
- 3> Remove obsolete equipment and install cover plates on the face of the SCADA panel.
- 4> Clean/neutralize any battery leak residue before installing new panel equipment.
- 5> Install new battery panel and backup battery.
- 6> Program, wire/install, new RTU PLC and associated terminal blocks, etc. (layout typical like new well)
- 7> Program, wire/install, new (serial) Radio and antenna utilizing existing antenna cable and pole.

Unknown Items:

- Who is providing the new tank level sensors and other tank equipment?
- Who is providing the new overflow vault sensors and equipment?

Who is providing the Level Probe sensor for the overflow vault?

Who is providing the Conduit and wire from booster building to tank and vault?

		Two pumps (none VFD)
DI	(Hand)-Off-Auto Pump 1	Yes
DI	Hand-off-(Auto) pump 1	Yes
DO	Run Command pump 1	Yes
DI	Runback pump 1	Yes
DI	Fault pump 1	Yes
AI	Flow Pump 1	Yes (if available)
AI	Amps Pump 1	Yes (if available)
DI	Hand-off-(Auto) pump 2	Yes
DO	Run Command pump 2	Yes
DI	Runback pump 2	Yes
DI	Fault pump 2	Yes
AI	Flow Pump 2	Yes (if available)
AI	Amps Pump 2	Yes (if available)
AI	Tank Water Level	Yes
DI	Tank intrusion switch	Yes (if available) optional
AI	Overflow Vault water level	Yes (if available) optional
DI	Overflow High Level float	Yes
DI	Power On	
	Other Items?	Optional

All new equipment, including tank Level sensors, overflow vault Level sensors, shall be provided by the Electrical or General Contractor, including the wire and conduits from the sensor locations into the existing SCADA panel located in the booster building.

Item #5 Existing Upper Tank SCADA RTU: \$6,100

As part of this project, the control panel mounted on the pole at the existing tank site will be used to house the new SCADA equipment. This panel would contain a new PLC (Programable Logic Controller) and new communications radio. The PLC would monitor tank level and communicate tank level information to the new well and the existing wells.

This system herein proposed replaces all SCADA control components located in the existing panel.

Included Items:

- 1> Identify and label all existing I/O wiring in existing SCADA panel.
- 2> Remove all existing equipment from SCADA panel.
- 3> Remove obsolete equipment and install cover plates on the face of the SCADA panel.
- 4> Clean/neutralize any battery leak residue before installing new panel equipment.

- 5> Install new battery panel and backup battery on the pole below existing panel.
- 6> Program, wire/install, new RTU PLC and associated terminal blocks, etc. (layout typical like new well)
- 7> Program, wire/install, new (serial) Radio and antenna utilizing existing antenna cable and pole.

		Tank
AI	Tank level	Yes
DI	Tank intrusion	Yes (if available)
AI	Battery Voltage	Yes
	Other Items?	Optional

Item #6 Existing Well02 SCADA RTU: \$7,500

As part of this project, the control panel mounted on the wall in the existing building will be used to house the new SCADA equipment. This panel would contain a new PLC (Programable Logic Controller) and new communications radio.

This system herein proposed replaces all SCADA control components located in the well building.

Included Items:

- 1> Identify and label all existing I/O wiring in existing SCADA panel.
- 2> Remove all existing equipment from SCADA panel.
- 3> Remove obsolete equipment and install cover plates on the face of the SCADA panel.
- 4> Clean/neutralize any battery leak residue before installing new panel equipment.
- 5> (This site is not power outage critical) and does not include a battery panel and backup battery.
- 6> Program, wire/install, new RTU PLC and associated terminal blocks, etc. (layout typical like new well)
- 7> Program, wire/install, new (serial) Radio and antenna utilizing existing antenna cable and pole.

		Well soft start
DI	(Hand)-Off-Auto	Yes
DI	Hand-off-(Auto)	Yes
DO	Run Command	Yes
DI	Runback	Yes
DI	Fault	Yes
AI	Well Flow	Yes (required)
AI	Well Water Level	Yes (if available) optional
AI	System Pressure	Yes (if available) optional
DI	Power On	Yes
DI	Tank or Pond Select	Yes (required)
	Other Items?	Optional

A two-position switch will be mounted on the SCADA panel and label (Flow To: Tank or Middle Pond). When the system is in Auto the PLC would monitor the Well #2 percent of flow or the pond level via radio communication

and turn the well on/off as required. The flowmeter may need to be replaced or upgraded to allow the SCADA System to monitor flows. Replacement of this flow meter is not a part of the work herein proposed.

Item #7 Existing Well01 SCADA RTU: \$7,500

As part of this project, the control panel mounted on the wall in the existing building will be used to house the new SCADA equipment. This panel would contain a new PLC (Programable Logic Controller) and new communications radio.

This system herein proposed replaces all SCADA control components located in the well building.

Included Items:

- 1> Identify and label all existing I/O wiring in existing SCADA panel.
- 2> Remove all existing equipment from SCADA panel.
- 3> Remove obsolete equipment and install cover plates on the face of the SCADA panel.
- 4> Clean/neutralize any battery leak residue before installing new panel equipment.
- 5> (This site is not power outage critical) and does not include a battery panel and backup battery.
- 6> Program, wire/install, new RTU PLC and associated terminal blocks, etc. (layout typical like new well)
- 7> Program, wire/install, new (serial) Radio and antenna utilizing existing antenna cable and pole.

		Well soft start
DI	(Hand)-Off-Auto	Yes
DI	Hand-off-(Auto)	Yes
DO	Run Command	Yes
DI	Runback	Yes
DI	Fault	Yes
AI	Well Flow	Yes (optional)
AI	Well Water Level	Yes (if available) optional
AI	System Pressure	Yes (if available) optional
DI	Power On	Yes
	Other Items?	Optional

When the system is in Auto the PLC would monitor the pond level via radio communication and turn the well on/off as required. The flowmeter may need to be replaced or upgraded to allow the SCADA System to monitor flows. Replacement of this flow meter is not a part of the work herein proposed.

Item #8 Existing Well03 SCADA RTU: \$10,300

As part of this project, the control panel mounted on the wall in the existing building will be used to house the new SCADA equipment. This panel would contain a new PLC (Programable Logic Controller) and new communications radio.

This system herein proposed replaces all SCADA control components located in the well building.

Included Items:

- 1> Identify and label all existing I/O wiring in existing SCADA panel.
- 2> Remove all existing equipment from SCADA panel.
- 3> Remove obsolete equipment and install cover plates on the face of the SCADA panel.
- 4> Clean/neutralize any battery leak residue before installing new panel equipment.
- 5> (This site is not power outage critical) and does not include a battery panel and backup battery.
- 6> Program, wire/install, new RTU PLC and associated terminal blocks, etc. (layout typical like new well)
- 7> Program, wire/install, new (serial) Radio and antenna utilizing existing antenna cable and pole.

Optional Item (Well 03 Pump Control Panel)

- 1> Identify and label all existing I/O wiring in existing Pump Control Panel. (Flow to waste Valve etc.)
- 2> Remove all unused equipment from the pump control panel.
- 3> Get the Flow to waste valve operating from the pump control panel.

		Well soft start
DI	(Hand)-Off-Auto	Yes
DI	Hand-off-(Auto)	Yes
DO	Run Command	Yes
DI	Runback	Yes
DI	Fault	Yes
AI	Well Flow	Yes (required)
AI	Well Water Level	Yes (if available) optional
AI	System Pressure	Yes (if available) optional
DI	Power On	Yes
	Other Items?	Optional

When the system is in Auto the PLC would monitor the Tank level via radio communication and turn the well on/off as required including day and night set points for power savings. The flowmeter may need to be replaced or upgraded to allow the SCADA System to monitor flows. Replacement of this flow meter is not a part of the work herein proposed.

As part of this project, The control panel mounted on the wall in the existing Well03 building will be replaced with a new SCADA Panel and new SCADA equipment. This panel would contain a new PLC (Programable Logic Controller) and communications radio. The PLC would monitor pond levels and communicate level information to the well for on off operation. The flowmeter may need to be replaced or upgraded to allow the SCADA system to monitor flows. Replacement of this flow meter is not a part of the work herein proposed.

Item #9 Existing Lower Pond RTU: \$7,400

As part of this project, the control panel mounted in the original pump control panel will be used to house the new SCADA equipment. This panel would contain a new PLC (Programable Logic Controller) and new

communications radio. The PLC would monitor the middle pond level and turn the booster pumps on and off as needed with day and night setpoints. The PLC would also communicate pond level to the water office.

This system herein proposed replaces all SCADA control components located at the lower pond.

Included Items:

- 1> Identify and label all existing I/O wiring in existing SCADA panel.
- 2> Remove all existing equipment from SCADA panel.
- 3> Remove obsolete equipment and install cover plates on the face of the SCADA panel.
- 4> Clean/neutralize any battery leak residue before installing new panel equipment.
- 5> Install new battery panel and backup battery.
- 6> Program, wire/install, new RTU PLC and associated terminal blocks, etc. (layout typical like new well)
- 7> Program, wire/install, new (serial) Radio and antenna utilizing existing antenna cable and pole.

Optional Item (Lower Pond Control Panel)

With the installation of the two new pump drives there is some obsolete equipment in the original pump control panel. This option is to clean up this panel, label existing wiring and remove obsolete equipment to simplify pump control trouble shooting and testing.

- 1> Identify and label all existing wiring in existing Pump Control Panel.
- 2> Remove all unused equipment from the pump control panel.
- 3> Remove obsolete equipment and install cover plates on the face of the PCP panel.

		Two pumps (none VFD)
DI	(Hand)-Off-Auto Pump 1	Yes
DI	Hand-off-(Auto) pump 1	Yes
DO	Run Command pump 1	Yes
DI	Runback pump 1	Yes
DI	Fault pump 1	Yes (if available)
AI	Flow Pump 1	Yes (if available)
AI	Amps Pump 1	Yes (if available)
DI	Hand-off-(Auto) pump 2	Yes
DO	Run Command pump 2	Yes
DI	Runback pump 2	Yes
DI	Fault pump 2	Yes (if available)
AI	Flow Pump 2	Yes (if available)
AI	Amps Pump 2	Yes (if available)
AI	Pond Water Level	Yes
DI	Power On	
	Other Items?	Optional

Item #10 Existing Middle Pond RTU: \$7,400

As part of this project, the control panel mounted in the original pump control panel will be used to house the new SCADA equipment. This panel would contain a new PLC (Programable Logic Controller) and new communications radio. The PLC would monitor the upper pond level and turn the booster pumps on and off as needed with day and night setpoints. The PLC would also communicate middle and upper pond level to the water office.

This system herein proposed replaces all SCADA control components located at the lower pond.

Included Items:

- 1>Identify and label all existing I/O wiring in existing SCADA panel.
- 2>Remove all existing equipment from SCADA panel.
- 3>Remove obsolete equipment and install cover plates on the face of the SCADA panel.
- 4>Clean/neutralize any battery leak residue before installing new panel equipment.
- 5>Install new battery panel and backup battery.
- 6>Program, wire/install, new RTU PLC and associated terminal blocks, etc. (layout typical like new well)
- 7>Program, wire/install, new (serial) Radio and antenna utilizing existing antenna cable and pole.

Optional Item (middle Pond Control Panel)

With the installation of the two new pump drives there is some obsolete equipment in the original pump control panel. This option is to clean up this panel, label existing wiring and remove obsolete equipment to simplify pump control trouble shooting and testing.

- 1>Identify and label all existing wiring in existing Pump Control Panel.
- 2>Remove all unused equipment from the pump control panel.
- 3>Remove obsolete equipment and install cover plates on the face of the PCP panel.

		Two pumps (none VFD)
DI	(Hand)-Off-Auto Pump 1	Yes
DI	Hand-off-(Auto) pump 1	Yes
DO	Run Command pump 1	Yes
DI	Runback pump 1	Yes
DI	Fault pump 1	Yes
AI	Flow Pump 1	Yes (if available)
AI	Amps Pump 1	Yes (if available)
DI	Hand-off-(Auto) pump 2	Yes
DO	Run Command pump 2	Yes
DI	Runback pump 2	Yes
DI	Fault pump 2	Yes
AI	Flow Pump 2	Yes (if available)
AI	Amps Pump 2	Yes (if available)

AI	Tank Water Level	Yes
AI	Upper Pond Level	Yes
DI	Power On	
	Other Items?	Optional

As part of this project, the existing control panel mounted at the Middle Pond will be utilized for the new SCADA equipment. This panel would contain a new PLC (Programable Logic Controller) and communications radio. The PLC would monitor pond level and communicate Pond level information to the two booster pumps. The SCADA system will be programed to provide booster pumps pond level control.

Item #11 Upper Pond RTU: (Included with Middel Pond)

As part of this project, the existing control panel mounted at the Middle Pond will be utilized/programed to monitor the Upper Pond Level. The PLC would communicate Pond level information to the two booster pumps. The SCADA System will be programed to provide booster pumps pond level control.

Project Summary:

Item #1 Upgrade the water office computer (Software and Program): \$16,300

Item #2 Upgrade the water office MTU: \$7,200

Item #3 New Well #4 SCADA RTU: \$13,430

Item #4 Existing New Tank (Booster station) SCADA RTU: \$13,430

Item #5 Existing Upper Tank SCADA RTU: \$6,100

Item #6 Existing Well02 SCADA RTU: \$7,500

Item #7 Existing Well01 SCADA RTU: \$7,500

Item #8 Existing Well03 SCADA RTU: \$10,300

Item #9 Existing Lower Pond RTU: \$7,400

Item #10 Existing Middle Pond RTU: \$7,400

Item #11 Upper Pond RTU: (Included with Middel Pond)

Total Project: \$96,560

Project Timing: This project will proceed in a step by step process to allow the existing SCADA system to function (with minimal down time) during the upgrade. The priority order of sites may be determined by the city (for example Well #1 may be having problems and perhaps should be first) As each existing remote site is updated to the new PLC and new program format the existing HMI computer will be updated (re-programed) to allow communications and current operation and functionality to continue. At some point the New and Old HMIs will operate side by side for a time until the Old HMI is de-commissioned. Depending on project approval timing and the timing of the General and Electrical contractors, It is anticipated that the project should be completed by Dec. 31, 2023 .

Measurements of completion and Payments:

Item	Name	Cost	Paid	Balance
Item #1	Office HMI	\$16,300	\$0	\$16,300
Item #2	Office MTU	\$7,200	\$0	\$7,200
Item #3	Well #4 (new)	\$13,430	\$6,715	\$6,617
Item #4	New Tank Booster	\$13,430	\$5,120	\$8,310
Item #5	Upper Tank	\$6,100	\$0	\$6,100
Item #6	Well, #2	\$7,500	\$6,250	\$1,250
Item #7	Well, #1	\$7,500	\$4,250	\$3,250
Item #8	Well #3	\$10,300	\$5,150	\$5,150
Item #9	Lower Pond	\$7,400	\$3,700	\$3,700
Item #10	Middle Pond	\$7,400	\$5,450	\$1,950
Item #11	Upper Pond	\$0	\$0	\$0
	Total	\$96,560	\$36,635	\$59,925

Payments: As each Item above is completed and/or approved by the city, an Invoice will be sent for the Balance amount. In the case of Item #1 Once the HMI Software license is obtained the city will be invoiced \$10,000 of the \$16,300.

Based on the scope of work Full spectrum Inc will provide a certification of liability insurance to Moroni City with \$1,000,000 each occurrence and \$2,000,000 aggregate from the dates 7/31/2023 to 7/31/2024. The typical cost for insurance certification would be \$1,000/year billed to the city. Based on the scope of work as detailed in this proposal the insurance costs will be covered by Full Spectrum Inc. for the 2023-2024 period.

Please let me know If you have any questions regarding this proposal.
Thanks for the opportunity!

Sincerely,



Andrew Robinson PE

Mission Statement: Provide quality engineering services to safeguard life, health, and the property of clients, with integrity, ensuring that the services provided are worthy of the clients investment.

Full Spectrum Inc.
P.O. Box 358
Nephi, UT 84648

Email: fullspec@juno.com
Phone: 435-623-4713
Cell: 435-660-0489

Proposal: 20230801Rev:20230818 Acceptance Signature Page

Measurements of completion and Payments:

Item	Name	Cost	Paid	Balance
Item #1	Office HMI	\$16,300	\$0	\$16,300
Item #2	Office MTU	\$7,200	\$0	\$7,200
Item #3	Well #4 (new)	\$13,430	\$6,715	\$6,617
Item #4	New Tank Booster	\$13,430	\$5,120	\$8,310
Item #5	Upper Tank	\$6,100	\$0	\$6,100
Item #6	Well, #2	\$7,500	\$6,250	\$1,250
Item #7	Well, #1	\$7,500	\$4,250	\$3,250
Item #8	Well #3	\$10,300	\$5,150	\$5,150
Item #9	Lower Pond	\$7,400	\$3,700	\$3,700
Item #10	Middle Pond	\$7,400	\$5,450	\$1,950
Item #11	Upper Pond	\$0	\$0	\$0
	Total	\$96,560	\$36,635	\$59,925

Payments: As each Item above is completed and/or approved by the city, an Invoice will be sent for the Balance amount. In the case of Item #1 Once the HMI Software license is obtained the city will be invoiced \$10,000 of the \$16,300.

Optional Items: (for details See next page) Please Circle YES/NO indicating to include optional item:

YES / NO Item A Ethernet Radio Network: \$15,000.

YES / NO Item B Well #3 Old Pump Control Panel \$1,620. (T&M) (other site panels?)

YES / NO Item C SCADA Flow Data Reporting: \$7,200.

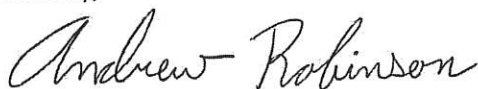
YES / NO Item D Well #3 Tank / Pond selection flow switch: \$2,500.

YES / NO Item E Well #4 Tank / Pond selection flow switch: \$2,500.

Total Amount: _____ **Approved for Optional Items.**

Moroni City Representative Signature: _____ Date: _____

Sincerely,



Andrew Robinson PE

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Full Spectrum Inc.
P.O. Box 358
Nephi, UT 84648

Email: fullspec@juno.com
Phone: 435-623-4713
Cell: 435-660-0489

Optional Item Details:**Item A Ethernet Radio Network: \$15,000**

The current partially upgraded radio communications network utilizes serial communications. The project proposed here plans to continue upgrading the remaining sites to the same serial radio communications network. These radios have been around for many years, are currently available and widely used, and currently not marked for obsolescence. Many SCADA providers have switched completely to ethernet. If the city would like to upgrade to an Ethernet network which does provide some added functionality this perhaps would be a good time to make that move.

Item B Well #3 Old Pump Control Panel: \$1,620 (T&M)

Several sites have upgraded pump control panels and the old pump control panels have been obsoleted. In the case of Well #3 some parts of the old pump control panel are still required while the majority is obsolete. The well flow to waste valve is not functioning and this functionality is a part of the old pump control Panel. With the installation of the new pump starter, most of the equipment in the old pump control panel should be removed. The Identification of necessary vs obsoleted equipment is the intent of this item. Necessary equipment will be identified, labeled, and made functional while obsoleted equipment will be identified and removed. (Other upgraded pump control panels sites also fit into this category and should be cleaned up) The \$1,620 is an estimate that should allow the Well #3 work to be completed at the current Full Spectrum bill rate of \$135/hr.

Item C SCADA FLOW Data Reporting system/program: \$7,200 (Optional)

Daily data logging/ reporting system to the HMI computer to daily log flow totals. Add reporting functionality that allows the generation of daily, weekly, monthly, and yearly flow total reports. This option would require that the city provide a licensed copy of Microsoft Office Professional for the SCADA Computer.

If you have questions regarding these additional items or perhaps other items you would like cost estimates on please contact me at your earliest convenience.

Item D Well # 3 Optional Tank / Pond selection flow switch: \$2,500

Install a operator selection switch in the SCADA panel at the Well #3 site that allows the selection of system valving to Tank or to Pond. Based on Switch position the SCADA system would control the well on/off from tank level or pond level, and would provide for nitrate blending when in the tank position and would separate flow kgal to Pond from flow kgal to tank for reporting purposes

Item E Well # 4 Optional Tank / Pond selection flow switch: \$2,500 (same as Item D for Well #3)

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Full Spectrum Inc.
P.O. Box 358
Nephi, UT 84648

Email: fullspec@juno.com
Phone: 435-623-4713
Cell: 435-660-0489

Pay Request #14
Culinary Water Improvements Project

**MORONI CITY CULINARY WATER IMPROVEMENT PROJECT
PAYMENT SCHEDULE**

PAY REQUEST: #14

PERSON OR FIRM	AMOUNT	PURPOSE
Sunrise Engineering	\$ 24,131.03	
Terry R. Brotherson Excavating, Inc.	\$ 516,541.54	
TOTAL:	\$ 540,672.57	

Submitted By: _____
Moroni City Authorized Signature

Date: _____

Approved DDW By: _____
Division of Drinking Water Authorized Signature

Date: _____

Reimbursement for the above listed payments is to be made to MORONI CITY ("Entity") by transfer of funds from the Escrow Account (PTIF # 6025) to (CHECK ONE):

 X Entity's general account in the Public Treasurers' Investment Fund (PTIF # 0655): or to

_____ Entity's checking account at _____ ("BANK")
Account number

EXHIBIT B - 1

WRITTEN AUTHORIZATION AND REQUEST FOR REIMBURSEMENT
FROM ESCROW FUND

TO: The Utah State Treasurer, as Escrow Agent (the "Treasurer").

DATE: August 15, 2023

WRITTEN REQUEST NO.: 14

I, the undersigned authorized officer of MORONI CITY, (the "Entity"), do hereby certify and request to the Treasurer as follows:

1. Pursuant to the provisions of the Escrow Agreement by and between the Entity, the State and the Treasurer dated 1/22/20021, (the "Escrow Agreement"), the undersigned hereby authorizes and requests a reimbursement from the Escrow Account to pay the amounts shown on the attached Payment Schedule.
2. Each payment proposed to be made as set forth on the Payment Schedule has been incurred and is a proper charge against the Escrow Account.
3. To the extent that the payment of any item set forth on the Payment Schedule is for other than work, materials, equipment or supplies, in connection with this authorization and request, the undersigned certifies that each payment proposed to be made on the Payment Schedules is a proper charge against the Escrow Account, is a reasonable amount and has not been heretofore included in a prior Written Authorization and Request for Reimbursement for the Escrow Account.
4. This Written Authorization and Request, including the Payment Schedule attached hereto, shall be conclusive evidence of the facts and statements set forth herein.
5. A copy of this Written Authorization and Request is being kept on file in the official records of the Entity.

The terms used herein, which are defined in the Escrow Agreement, shall have the respective meanings therein assigned to them.

By: _____

Title: _____

EXHIBIT B-2

I/we, the undersigned authorized officer(s) of the State, do hereby certify and request to the Treasurer as follows:

1. I/we have reviewed the foregoing statements of the authorized officer of the Entity attached hereto, and on behalf of the State approve the request for payment from the Escrow Fund made therein; provided that the State has not independently verified the statements of such authorized officer of the Entity attached hereto and makes no representations or certifications with respect thereto.
2. A copy of this Written Authorization and Request is being kept on file in the official records of the State.

The terms used herein shall have the same meanings assigned to them in the attached statements of the authorized officer of the Entity.

Dated the date appearing at the top of the attached statements of the authorized officer of the Entity.

State: Drinking Water Board

By: _____

Title: Assistant Executive Secretary_____

EXHIBIT B - 3

REIMBURSEMENT SCHEDULE

Check No.	Person or Firm	Amount	Purpose
	Sunrise Engineering	\$24,131.03	Engineering Services
	Terry R. Brotherson Ex. Inc.	\$516,541.54	Construction Services

Reimbursement for the above listed payments totaling \$540,672.57 is to be made to Moroni City ("Entity") by transfer of funds from the Escrow Account (PTIF# 6025) to (CHECK ONE):

____X____ Entity's general account in the Public Treasurer's Investment Fund
(PTIF# 0655); or to

____ Entity's checking account at _____ ("Bank").
Account number _____.

RETAINAGE REQUEST

In addition to the above listed reimbursement, transfer the following retainage amounts:

From Escrow Acct.#	To Retainage Acct.#	For Contractor (name)	#Amount
--------------------	---------------------	-----------------------	---------

Contact Person at time of Wire Transfer Trent Brown 435-896-7613
(name) (phone #)

STATE REVOLVING FUND / UTAH DRINKING WATER LOAN PROGRAM					
DISBURSEMENT REQUEST FORM					
Moroni City #20013					
3F1772 / 3F1878			Request No. 13		
DISBURSEMENTS JOURNAL PTIF #			date: 07/11/2023		
Project Cost Classification	Current Budget	Previously Disbursed	Disbursed This Request	Disbursed To Date	Remaining Budget
Administration					
Legal & Bonding	21,895.20	21,895.20		21,895.20	-
		-		-	-
Engineering - Sunrise Engineering					
Engineering - Design (LS)	244,500.00	236,762.25		236,762.25	7,737.75
Engineering - CMS (T&M)	265,000.00	163,681.73	24,131.03	187,812.76	77,187.24
Construction - White Mtn Operating					
Construction - Test Well	82,495.05	82,495.05		82,495.05	-
Schedule I		82,495.05	-	82,495.05	
Retainage		-	-	-	
Construction - White Mtn Operating					
Construction - Production Well	400,017.62	400,017.62	-	400,017.62	-
Schedule I		386,647.24	-	386,647.24	
Retainage		13,370.38	-	13,370.38	
Construction - Terry R Brotherson Excavation, Inc					
Construction - Tank/Well House	4,147,139.35	2,714,860.40	543,727.94	3,258,588.34	888,551.01
Schedule I		2,579,117.38	516,541.54	3,095,658.92	
Retainage		135,743.02	27,186.40	162,929.42	
Miscellaneous					
Land Acquisition	25,000.00	17,493.62		17,493.62	7,506.38
Slurry	467.94	467.94		467.94	-
Well Site Improvements	28,529.36	28,529.36		28,529.36	-
SCADA	125,000.00	36,635.00		36,635.00	88,365.00
Rocky Mountain Power	75,000.00	-		-	75,000.00
Contingency	487,053.28				487,053.28
Total Amount	5,902,097.80	3,702,838.17	567,858.97	4,270,697.14	1,631,400.66
				Bank Balance:	1,631,400.66
Escrow RECEIPTS JOURNAL PTIF# 6025 DDW USE ONLY					
Funding Source	Current Budget	Previously Received	Received This Period	Received To Date	Amt Remaining To Receive
DWB 3F1772 Loan (30 yrs, 1.0%)	2,485,000.00	2,485,000.00	-	2,485,000.00	-
DWB 3F1772 Principal Forgiveness	1,050,000.00	1,050,000.00	-	1,050,000.00	-
DWB 3F1878 Loan (30 y, 1%)	1,178,000.00	1,178,000.00		1,178,000.00	-
DWB 3F1878 PF	1,179,000.00	1,179,000.00		1,179,000.00	-
Local Contribution	-	-		-	-
Interest	10,097.80	10,097.80		10,097.80	-
Total Amount	5,902,097.80	5,902,097.80	-	5,902,097.80	-
Contractor RETAINAGE JOURNAL PTIF#					
Classification	Received to Date	Previously Released	Released This Request	Released To Date	Principle Balance
Retainage Disbursements	-	-	-	-	-
Interest		-		-	-
Total Amount	-	-	-	-	-
White Mountain RETAINAGE JOURNAL PTIF# 6144					
Classification	Received to Date	Previously Released	Released This Request	Released To Date	Principle Balance
Retainage Disbursements	13,370.38	13,370.38	-	13,370.38	-
Interest	32.14	32.14	-	32.14	-
Total Amount	13,402.52	13,402.52	-	13,402.52	-
Moroni City #20013: _____ DATE: _____					
Utah Division of Drinking Water: _____ DATE: _____					

SUNRISE ENGINEERING INC.

NAME OF OWNER: **Moroni City**

PAY REQUEST COVERED

14

DESCRIPTION OF JOB:

PAY REQUEST DATE: 08/15/23

MORONI CITY CULINARY WATER IMPROVEMENTS

CLASSIFICATION	BUDGET/ CONTRACT AMOUNT	PREVIOUSLY DISBURSED	THIS REQUEST	TOTAL REQUESTS	LEFT IN BUDGET
B CONSTRUCTION - White Mountain					
Test Well Drilling	\$94,225.05	\$82,495.05	\$0.00	\$82,495.05	\$0.00
Production Well Drilling	\$0.00	\$386,647.24	\$0.00	\$386,647.24	\$0.00
Retainage		\$13,370.38	\$0.00	\$13,370.38	
Change Orders #1 - #3	\$388,287.62				
Total	\$482,512.67	\$482,512.67	\$0.00	\$482,512.67	\$0.00
C CONSTRUCTION - Terry R Brotherson					
Project Construction Contractor	\$4,144,018.09	\$2,579,117.38	\$516,541.54	\$3,095,658.92	\$888,551.01
Retainage		\$135,743.02	\$27,186.40	\$162,929.42	
Change Orders	\$3,121.26				
Total	\$4,147,139.35	\$2,714,860.40	\$543,727.94	\$3,258,588.34	\$888,551.01
D ENGINEERING (LS)					
0001 Preliminary Engineering Phase	\$10,000.00	\$10,000.00	\$0.00	\$10,000.00	\$0.00
0002 Environmental Assessment	\$18,500.00	\$18,500.00	\$0.00	\$18,500.00	\$0.00
0003 Survey Services	\$15,675.00	\$15,675.00	\$0.00	\$15,675.00	\$0.00
0004 Geotechnical Investigation	\$6,500.00	\$6,500.00	\$0.00	\$6,500.00	\$0.00
0005 Well Design	\$16,550.00	\$11,477.25	\$0.00	\$11,477.25	\$5,072.75
0006 Electrical Design	\$12,200.00	\$12,200.00	\$0.00	\$12,200.00	\$0.00
0007 Preliminary Design	\$41,000.00	\$41,000.00	\$0.00	\$41,000.00	\$0.00
0008 Final Design	\$105,750.00	\$105,750.00	\$0.00	\$105,750.00	\$0.00
0011 Construction Staking	\$13,325.00	\$10,660.00	\$0.00	\$10,660.00	\$2,665.00
0012 Water Rights Services	\$2,500.00	\$2,500.00	\$0.00	\$2,500.00	\$0.00
0013 Water Conservation Plan	\$2,500.00	\$2,500.00	\$0.00	\$2,500.00	\$0.00
Total	\$244,500.00	\$236,762.25	\$0.00	\$236,762.25	\$7,737.75
E ENGINEERING (T&M)					
0009 Procurement	\$15,832.00	\$15,143.45	\$0.00	\$15,143.45	\$688.55
0010 Construction Engineering Services	\$249,168.00	\$148,538.28	\$24,131.03	\$172,669.31	\$76,498.69
Total	\$265,000.00	\$163,681.73	\$24,131.03	\$187,812.76	\$77,187.24
F LEGAL					
Estimate	\$21,895.20	\$21,895.20	\$0.00	\$21,895.20	\$0.00
Total	\$21,895.20	\$21,895.20	\$0.00	\$21,895.20	\$0.00
G Miscellaneous					
SCADA	\$125,000.00	\$36,635.00	\$0.00	\$36,635.00	\$88,365.00
Land Acquisition	\$25,000.00	\$17,493.62	\$0.00	\$17,493.62	\$7,506.38
Rocky Mountain Power	\$75,000.00	\$0.00	\$0.00	\$0.00	\$75,000.00
Total	\$225,000.00	\$54,128.62	\$0.00	\$54,128.62	\$95,871.38
H City Reimbursement					
Slurry	\$467.94	\$467.94	\$0.00	\$467.94	\$0.00
Well Site Improvements	\$28,529.36	\$28,529.36	\$0.00	\$28,529.36	\$0.00
Total	\$28,997.30	\$28,997.30	\$0.00	\$28,997.30	\$0.00
Budget Subtotal:	\$5,415,044.52				
Expenditures Including Retainage:		\$3,702,838.17	\$567,858.97	\$4,270,697.14	
Less Retainage Withheld:		\$149,113.40	\$27,186.40	\$176,299.80	
Subtotals:		\$3,553,724.77	\$540,672.57	\$4,094,397.34	
TOTAL NET CUMULATIVE BUDGET	\$5,902,097.80	LESS PREVIOUS DISBURSEMENT		\$3,553,724.77	
DDW Loan	\$2,485,000.00	AMOUNT REQUESTED		\$540,672.57	
DDW Grant	\$1,050,000.00	AMOUNT LEFT IN CONTINGENCY:			\$487,053.28
DDW Additional Loan	\$1,178,000.00				
DDW Additional Grant	\$1,179,000.00				
Received to Date	\$5,902,097.80				
Interest Earnings if applicable:	\$ 10,097.80				
				Total Funding Balance:	\$1,631,400.66
				Bank Balance:	\$1,631,400.66

APPLICATION FOR PAYMENT
PROJECT MANAGEMENT & CONSULTATION
MORONI CITY CULINARY WATER IMPROVEMENTS 2021

CONTRACT NO.

PAYMENT NO. 14

PAGE 1 OF 1

OWNER:
MORONI CITY

ENGINEER:
SUNRISE ENGINEERING, INC.

PERIOD OF ESTIMATE

FROM: *July 1, 2023*

TO: *July 29, 2023*

CONTRACT AMENDMENT SUMMARY

TABULATION OF PAYMENT

NO.	APPROVAL DATE	AMOUNT			
		ADDITIONS	DEDUCTIONS		
1	23-Mar-21	\$ 2,500.00		1. Original Contract Prices.....	\$ 504,500.00
2	4-Nov-21	\$ 2,500.00		2. Contract Amendments.....	\$ 7,800.00
3	18-Oct-22	\$ 2,800.00		3. Revised Contract Price (1 + 2).....	\$ 512,300.00
				4. Total Value of Work Completed to Date	\$ 424,575.01
				5. Total Previous Payments to Engineer.....	\$ 400,443.98
				6. Payment Due Engineer this Period (4-5).....	\$ 24,131.03
TOTALS		\$ 7,800.00	\$ -		
NET CHANGE		\$ 7,800.00			

CONTRACT TIME

Original Contract Time (Days)	On Schedule ___ Yes ___ No	Starting Date:	November 30, 2020
Revisions		Completion Date:	
Remaining Time (Days)			

REQUESTED BY: SUNRISE ENGINEERING, INC.

By  _____

Date 8/17/2023

APPROVED BY OWNER: MORONI CITY

By _____

Date _____

APPROVED BY: DIVISION OF DRINKING WATER BOARD

By _____

Date _____



SUNRISE ENGINEERING, INC.
25 East 500 North
Fillmore, UT 84631

INVOICE

August 8, 2023

Project No: S07765.000

Invoice No: 0136050

Moroni City
80 South 200 West
P.O. Box 870
Moroni, UT 84646

Remit to:
SUNRISE ENGINEERING INC
Dept # 2071
P.O. Box 29675
Phoenix, AZ 85038-9675

Project S07765.000 Moroni City Culinary Water Improvements

Professional Services Through July 29, 2023

Phase 0010 Construction Services

Task 007 Construction Engineering Main Project

Professional Personnel

	Hours	Rate	Amount	
Engineer Intern (E.I.T.) I	.25	101.00	25.25	
Engineer Intern (E.I.T.) II	31.75	112.00	3,556.00	
Electrical Engineer V	4.00	190.00	760.00	
Engineering Tech III	20.00	112.00	2,240.00	
Engineering Tech IV	7.50	135.00	1,012.50	
Totals	63.50		7,593.75	
Total Labor				7,593.75

Reimbursable Expenses

Meals			12.64	
Total Reimbursables			12.64	12.64

Unit Billing

7/6/2023	Mileage	706.0 Miles @ 0.59	416.54	
	Total Units		416.54	416.54
Total this Task				\$8,022.93

Task 008 RPR Main Project

Professional Personnel

	Hours	Rate	Amount	
Engineering Tech III	131.00	112.00	14,672.00	
Totals	131.00		14,672.00	
Total Labor				14,672.00

Reimbursable Expenses

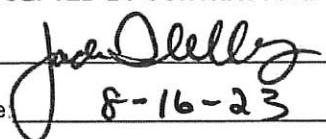
Perdiem			144.00	
Total Reimbursables			144.00	144.00

Unit Billing

7/17/2023	Mileage	2,190.0 Miles @ 0.59	1,292.10	
	Total Units		1,292.10	1,292.10
Total this Task				\$16,108.10

Total this Phase \$24,131.03

Project	S07765.000	Moroni City Culinary Water Improvements	Invoice	0136050
Total this Invoice				\$24,131.03

APPLICATION FOR PAYMENT				CONTRACT NO. S07765	
MORONI CITY CULINARY WATER IMPROVEMENTS 2022				PAYMENT NO. 14	
				PAGE 1 OF 3	
OWNER: Moroni City		CONTRACTOR: Terry R. Brotherson Excavation, Inc.		PERIOD OF ESTIMATE FROM: 1-Jul-23 TO: 30-Jul-23	
CONTRACT CHANGE ORDER SUMMARY			TABULATION OF PAYMENT		
NO.	APPROVAL DATE	AMOUNT			
		ADDITIONS	DEDUCTIONS		
1	2/24/2023	\$ 3,121.26		1. Original Contract Price.....	\$ 4,144,018.09
				2. Change Orders.....	\$ 3,121.26
				3. Revised Contract Price (1 + 2).....	\$ 4,147,139.35
				4. Total Value of Work Completed to Date *	\$ 3,227,989.13
				5. Allowance for Materials Stored on this Date*.....	\$ 30,599.21
				6. Subtotal (4+5).....	\$ 3,258,588.34
				7. Previously earned by Contractor (Prev. #6).....	\$ 2,714,860.40
				8. Value of Work Completed this Period (6-7).....	\$ 543,727.94
				9. Retainage Held Prior to this Payment (Prev. #11)	\$ 135,743.02
				10. Retainage to be Held from this Payment	\$ 27,186.40
				11. Total Retainage to be Held (9+10).....	\$ 162,929.42
				TOTALS	
NET CHANGE		\$ 3,121.26	* Detailed breakdown on attached continuation sheet		
CONTRACT TIME					
Original Contract Time (Days) 180		On Schedule		Starting Date: _____	
Revisions _____		_X_ Yes ___ No		Completion Date: _____	
Remaining Time (Days) 140					
ACCEPTED BY CONTRACTOR:			ENGINEER'S CERTIFICATION:		
By: 			The undersigned certifies that the work has been inspected and, to the best of their knowledge and belief, the quantities shown on this estimate are correct and the work has been performed in accordance with the contract documents.		
Date: 8-16-23					
APPROVED BY OWNER:			Engineer: SUNRISE ENGINEERING, INC.		
By: _____			By: 		
Date: _____			Date: 8/17/2023		

CONTINUATION SHEET - Application for Payment														Payment No. <u>14</u>			
Contract for: Manual Culinary Water Improvements Project 2022														Contract Cost			
Contractor: Terry R Brothers Excavation, Inc.														Original	\$ 4,144,013.09		
														Revised	\$ 4,147,139.35		
Tabulation of Payment Due This Period																	
Item No.	Payment Item Description	Contract Items					Previously Disbursed		Stockpiled Previously	Work Completed This Period		Stockpiled This Period	Work Completed to Date		%		
		Unit	Unit Price	Original Quantity	CO #1	CO #2	Revised Quantity	Total Cost		Quantity	Amount		Quantity	Value		Quantity	Completed - Stored
1	Mobilization	L.S.	\$ 277,142.07	1			1	\$ 277,142.07	0.4	\$ 110,856.83		0.40	\$ 110,856.83		0.8	\$ 221,713.66	80%
2	Pre-Construction Video Records	L.S.	\$ 3,000.00	1			1	\$ 3,000.00	1	\$ 3,000.00			\$ -		1	\$ 3,000.00	100%
3	Traffic Control	L.S.	\$ 8,000.00	1			1	\$ 8,000.00	0.7	\$ 5,600.00		0.30	\$ 2,400.00		1	\$ 8,000.00	100%
4	Subsurface Investigation	Hour	\$ 300.00	80			80	\$ 24,000.00	37	\$ 17,100.00			\$ -		37	\$ 17,100.00	71%
5	Solid Rock Excavation	L.F.	\$ 35.00	1500			1500	\$ 52,500.00	1780	\$ 62,300.00			\$ -		1780	\$ 62,300.00	119%
6	Re-Seeding	Acre	\$ 2,310.00	1			1	\$ 2,310.00		\$ -			\$ -		-	\$ -	
500,000 Gallon Tank																	
7	Chain Link Fence	L.F.	\$ 53.86	780			780	\$ 42,010.80		\$ -			\$ -			\$ -	
8	Earthwork 500,000 Gal. Concrete Water Storage Tank	L.S.	\$ 197,020.00	1			1	\$ 197,020.00	0.35	\$ 69,957.00		0.15	\$ 29,553.00		0.5	\$ 98,510.00	50%
9	500,000 Gal. Concrete Water Storage Tank	L.S.	\$ 829,690.80	1			1	\$ 829,690.80	0.96	\$ 795,503.17		0.04	\$ 33,187.63		1	\$ 829,690.80	100%
10	Electrical System - Tank Site	L.S.	\$ 66,200.00	1			1	\$ 66,200.00		\$ -		0.10	\$ 6,620.01		0.1	\$ 6,620.01	10%
Piping and System Improvements																	
11	Untraveled Base Course	C.Y.	\$ 29.28	250	-10		240	\$ 7,027.20	305.38	\$ 8,941.53		66.37	\$ 1,943.31		371.75	\$ 10,888.84	155%
12	Imported Pipe Bolding	L.F.	\$ 4.59	9620	-100		9520	\$ 43,696.80	8099	\$ 37,174.41		778.00	\$ 3,571.02		8877	\$ 40,745.43	91%
13	Imported Trench	L.F.	\$ 10.11	800			800	\$ 8,088.00	30	\$ 303.30			\$ -		30	\$ 303.30	4%
14	Imported Structural Backfill	L.F.	\$ 12.73	700	-100		600	\$ 7,638.00		\$ -			\$ -			\$ -	
15	Bituminous Surfacing 3"	S.Y.	\$ 87.13	400			400	\$ 34,852.00		\$ -		633.11	\$ 55,162.87		633.11	\$ 55,162.87	158%
16	Rip Rap-8 Inch	C.Y.	\$ 35.92	5			5	\$ 179.60		\$ -			\$ -			\$ -	
17	Decorative Driveway Gravel	Ton	\$ 25.44	100			100	\$ 2,544.00	47.15	\$ 1,199.50			\$ -		47.15	\$ 1,199.50	47%
18	Decorative Gravel Mulch	Ton	\$ 42.40	5			5	\$ 212.00		\$ -			\$ -			\$ -	
19	6-Inch PVC Pipe AWWA C900 DR18	L.F.	\$ 60.98	60			60	\$ 3,658.80	34	\$ 2,073.32		30.00	\$ 1,829.40		64	\$ 3,902.72	107%
20	6-Inch PVC Pipe AWWA C900 DR18	L.F.	\$ 61.04	2460			2460	\$ 150,188.40	1785	\$ 107,735.60	\$ -	431.00	\$ 26,308.24		2196	\$ 134,043.84	89%
21	10-Inch PVC Pipe AWWA C900 DR18	L.F.	\$ 87.14	360			360	\$ 31,370.40	220	\$ 19,170.36		100.00	\$ 8,714.00		320	\$ 27,884.80	89%
22	12-Inch PVC Pipe AWWA C900 DR18	L.F.	\$ 93.77	6740	-100		6640	\$ 622,632.80	6072	\$ 569,371.44	\$ 23,994.47	217.00	\$ 20,348.09		6289	\$ 613,714.00	99%
23	Boring and Jacking 20" Steel Casing	L.F.	\$ 744.27	35	-35			\$ -		\$ -			\$ -			\$ -	
23a	Directional Bore with 14" HDPE DR26 Installation	L.S.	\$ 38,043.60	1			1	\$ 38,043.60	1	\$ 38,043.60			\$ -		1	\$ 38,043.60	100%
24	Boring and Jacking 24" Steel Casing	L.F.	\$ 833.27	102	-102			\$ -		\$ -			\$ -			\$ -	
24a	Directional Bore with 20" HDPE DR26 Installation	L.S.	\$ 124,703.64	1			1	\$ 124,703.64	1	\$ 124,703.64			\$ -		1	\$ 124,703.64	100%
25	Payment Sowing	L.F.	\$ 3.00	1400			1400	\$ 4,200.00		\$ -		1,400.00	\$ 4,200.00		1400	\$ 4,200.00	100%
26	Remove & Dispose of Concrete Landscape Curb	L.F.	\$ 89.00	10			10	\$ 890.00		\$ -			\$ -			\$ -	
27	Remove & Dispose of Concrete Sidewalk	S.Y.	\$ 315.00	4			4	\$ 1,260.00	9	\$ 2,835.00			\$ -		9	\$ 2,835.00	225%
28	Remove & Dispose of Concrete Driveway Sides	S.Y.	\$ 38.50	200	-100		40	\$ 1,540.00		\$ -			\$ -			\$ -	
29	Replace Concrete Landscape Curb	L.F.	\$ 107.50	10			10	\$ 1,075.00		\$ -			\$ -			\$ -	
30	Replace Concrete Sidewalk 4" Thick	S.Y.	\$ 219.00	4			4	\$ 876.00		\$ -		4.75	\$ 1,040.25		4.75	\$ 1,040.25	119%
31	Replace Concrete Driveway	C.Y.	\$ 492.00	30	-40		10	\$ 4,920.00		\$ -			\$ -			\$ -	
32	6-Inch Gate Valve	EA	\$ 2,425.43	1			1	\$ 2,425.43	1	\$ 2,425.43		1.00	\$ 2,425.43		2	\$ 4,850.86	200%
33	6-Inch Gate Valve	EA	\$ 3,544.21	8	1		9	\$ 31,897.89	5	\$ 17,721.05		2.00	\$ 7,088.42		7	\$ 24,809.47	78%
34	10-Inch Gate Valve	EA	\$ 4,759.00	2			2	\$ 9,518.00	2	\$ 9,518.00			\$ -		2	\$ 9,518.00	100%
35	12-Inch Butterfly Valve	EA	\$ 5,046.72	5			5	\$ 25,233.60	4	\$ 20,186.88		2.00	\$ 10,093.44		6	\$ 30,280.32	120%
36	Fire Hydrant Assembly	EA	\$ 7,582.91	1			1	\$ 7,582.91	1	\$ 7,582.91			\$ -		1	\$ 7,582.91	100%
37	Combination Air/Vacuum Valve 2-Inch	EA	\$ 8,065.38	2			2	\$ 16,130.76	2	\$ 16,130.76			\$ -		2	\$ 16,130.76	100%
38	Combination Air/Vacuum Valve 3-Inch	EA	\$ 10,790.00	2			2	\$ 21,580.00		\$ -			\$ -			\$ -	
39	Pressure Reducing Valve Replacement 3-Inch	EA	\$ 45,432.00	3			3	\$ 136,296.00	2	\$ 90,864.00		1.00	\$ 45,432.00		3	\$ 136,296.00	100%
Overflow Line Improvements																	
40	Imported Pipe Bolding	L.F.	\$ 5.16	4135			4135	\$ 21,356.60	3931	\$ 20,283.96		50	\$ 259.28		3981	\$ 20,583.24	96%
41	12-Inch PVC Pipe AWWA C900 DR25	L.F.	\$ 76.68	4100			4100	\$ 314,388.00	3931	\$ 301,420.08	\$ 6,604.73		\$ -		3981	\$ 308,024.81	98%
42	10-Inch DI Pipe Class 51	L.F.	\$ 346.59	10			10	\$ 3,465.90		\$ -			\$ -			\$ -	
43	12-Inch DI Pipe Class 51	L.F.	\$ 709.60	10			10	\$ 7,096.00		\$ -			\$ -			\$ -	
44	16-Inch DI Pipe Class 51	L.F.	\$ 307.42	15			15	\$ 5,061.30		\$ -		18.00	\$ 7,133.56		18	\$ 7,133.56	120%
45	Junction Box	L.S.	\$ 48,754.00	1			1	\$ 48,754.00	1	\$ 48,754.00			\$ -		1	\$ 48,754.00	100%

46	Combination Air/Vacuum Valve 2-Inch	EA	\$	10,628.00	3			3	\$	31,884.00	3	\$	31,884.00		\$	-			3	\$	31,884.00	100%	
47	3-Inch Gooseneck Air Vent	EA	\$	5,907.26	1			1	\$	5,907.26		\$	-	1.00	\$	5,907.26			1	\$	5,907.26	100%	
48	1-Inch Drain Assembly	EA	\$	1,475.00	4			4	\$	5,900.00	4	\$	5,900.00		\$	-			4	\$	5,900.00	100%	
Well Building																							
49	3-Inch Grouted Riser	C.Y.	\$	314.40	12			12	\$	3,772.80		\$	-		\$	-				\$	-		
50	18" Smooth Lined Corrugated ADS N-12 HDPE Storm Drain Pipe	L.F.	\$	49.92	40			40	\$	1,996.80		\$	-	40.00	\$	1,996.80			40	\$	1,996.80	100%	
51	Removal of Fences	L.F.	\$	6.00	430			430	\$	2,580.00		\$	-		\$	-				\$	-		
52	Chain Link Fence	L.F.	\$	45.96	870			870	\$	39,985.20		\$	-		\$	-				\$	-		
53	Concrete Structure Headwall	L.S.	\$	10,519.71	1			1	\$	10,519.71		\$	-	1.00	\$	10,519.71			1	\$	10,519.71	100%	
54	Well Building Chlorination Equipment	L.S.	\$	42,540.00	1			1	\$	42,540.00		\$	-		\$	-				\$	-		
55	Well Building Structure	L.S.	\$	183,339.10	1			1	\$	183,339.10	0.1	\$	18,333.91	0.50	\$	91,669.55			0.6	\$	110,003.46	60%	
56	Well Building Earthwork and Grading	L.S.	\$	63,030.72	1			1	\$	63,030.72	0.1	\$	6,303.07	0.50	\$	31,515.36			0.6	\$	37,818.43	60%	
57	Well Building Piping, Valves and Fittings	L.S.	\$	91,940.28	1			1	\$	91,940.28	1	\$	91,940.28		\$	-			1	\$	91,940.28	100%	
58	Well Building Mechanical & HVAC	L.S.	\$	53,000.00	1			1	\$	53,000.00		\$	-		\$	-				\$	-		
59	Well Building Electrical	L.S.	\$	255,433.20	1			1	\$	255,433.20		\$	-	0.10	\$	25,543.32			0.1	\$	25,543.32	10%	
60	Submersible Well Pump System (600 GPM)	L.S.	\$	93,820.00	1			1	\$	93,820.00		\$	-		\$	-				\$	-		
61	1" Service Connection	EA	\$	1,224.00	1			1	\$	1,224.00		\$	-	1.00	\$	1,224.00			1	\$	1,224.00	100%	
62	1" Service Lateral Pipe or Tubing	L.F.	\$	20.85	30			30	\$	625.50		\$	-	30.00	\$	625.50			30	\$	625.50	100%	
63	1" Service Meter Setter Assembly	EA	\$	1,893.90	1			1	\$	1,893.90		\$	-	1.00	\$	1,893.90			1	\$	1,893.90	100%	
64	1" Meter	EA	\$	601.76	1			1	\$	601.76		\$	-	1.00	\$	601.76			1	\$	601.76	100%	
65	Well Building 3-Inch Mainline Ultrasonic Water Meter Assembly	L.S.	\$	7,557.72	1			1	\$	7,557.72	1	\$	7,557.72		\$	-			1	\$	7,557.72	100%	
66	Floor Drain & Sump Assembly	L.S.	\$	5,549.00	1			1	\$	5,549.00		\$	-	1.00	\$	5,549.00			1	\$	5,549.00	100%	
									\$	4,147,139.35		\$	2,672,716.18	\$	30,599.21		\$	555,272.95	\$	-	\$	3,258,688.34	79%

SUNRISE ENGINEERING, INC.

Stock Pile Materials

Name of Payee and Address:				Terry R. Brotherson Excavation, Inc.																	
Name of Owner:				Moroni City																	
Description of Job:				MORONI CITY CULINARY WATER IMPROVEMENTS 2022																	
				Contract Items			Stored Previously			This Period			Stored		Used Previously		Used This Period				
Bid Item	Invoice No.	Description	Pay Request #	Unit	QTY	Date	Value	Date	Stored	Total Stored	Material	Unit Price	Quantity	Value	Quantity	Used This Period	Balance Of Stockpile				
22	S104836622.001	12" PVC DR18	7	LF	1,960.00	8/10/2022	\$ 104,277.53			\$ 104,277.53			1960.00	\$ 104,277.53		\$ -	\$ -				
22	S104836622.003	12" PVC DR18	7	LF	1,960.00	8/10/2022	\$ 104,277.53			\$ 104,277.53			1960.00	\$ 104,277.53		\$ -	\$ (0.00)				
22	S104836622.005	12" PVC DR18	7	LF	1,960.00	8/11/2022	\$ 104,277.53			\$ 104,277.53			1960.00	\$ 104,277.53		\$ -	\$ (0.00)				
22	S104836622.011	12" PVC DR18	7	LF	740.00	8/24/2022	\$ 39,370.10			\$ 39,370.10			192.00	\$ 10,214.94	217.00	\$ 11,545.02	\$ 17,610.14				
22	S104836622.013	12" PVC DR 18	8	LF	120.00		\$ 6,384.34			\$ 6,384.34						\$ -	\$ 6,384.34				
Total Bid Item 22					6,740.00		\$ 358,587.03			\$ 358,587.03	\$ 53.20	6,072.00	\$ 323,047.54	217.00	\$ 11,545.02	\$ 23,994.47					
20	S104836622.011	8" PVC DR18	7	LF	480.00	8/24/2022	\$ 12,088.23			\$ 12,088.23			480.00	\$ 12,088.23		\$ -	\$ -				
Total Bid Item 20					480.00		\$ 12,088.23			\$ 12,088.23	\$ 25.18		\$ -	0.00	\$ -	\$ -					
41	S104836622.009	12" PVC DR25	7	LF	1,960.00	8/24/2022	\$ 75,525.28			\$ 75,525.28			1,960.00	\$ 75,525.28		\$ -	\$ 0.00				
41	S1048366 22.007	12" PVC DR25	7	LF	1,960.00	8/23/2022	\$ 75,525.28			\$ 75,525.28			1,949.00	\$ 75,525.28		\$ -	\$ (0.00)				
41	S104836622.015	12" PVC DR25	8	LF	180.00	9/8/2022	\$ 6,936.00			\$ 6,936.00			22.00	\$ 859.79		\$ -	\$ 6,076.21				
41	514735	Gaskets & Lube	8			9/8/2022	\$ 2,246.60			\$ 2,246.60				\$ 1,718.08		\$ -	\$ 528.52				
Total Bid Item 41					4,100.00		\$ 160,233.16			\$ 160,233.16	\$ 39.08	3,931.00	\$ 153,628.43	0.00	\$ -	\$ 6,604.73					
							\$ 530,908.42		\$ -	\$ 530,908.42			\$ 476,675.97		\$ 11,545.02	\$ 30,599.21					

Terry R Brotherson Excavating, Inc.

PO Box 158

95 W Main

Mt. Pleasant, UT 84647

**Invoice**

DATE	INVOICE #
8/2/2023	5088

BILL TO
309 - Moroni Culinary Water Improvements

		P.O. NO.		TERMS		PROJECT	
ITEM	DESCRIPTION	QTY	UOM	RATE		AMOUNT	
1	MOBILIZATION	0.4	LS	277,142.07		110,856.83	
3	TRAFFIC CONTROL	0.3	LS	8,000.00		2,400.00	
8	EARTHWORK 500,000 GAL. CONCRETE WATER STORAGE TANK	0.15	LS	197,020.00		29,553.00	
9	500,000 GALLON CONCRETE WATER STORAGE TANK	0.04	LS	829,690.80		33,187.63	
10	ELECTRICAL SYSTEM - TANK SITE	0.1	LS	66,200.10		6,620.01	
11	UNTREATED BASE COURSE	66.37	CY	29.28		1,943.31	
12	IMPORTED PIPE BEDDING	735	LF	4.59		3,373.65	
15	BITUMINOUS SURFACING 3"	633.11	SY	87.13		55,162.87	
19	6-INCH PVC PIPE AWWA C900 DR18	30	LF	60.98		1,829.40	
20	8-INCH PVC PIPE AWWA C900 DR18	410	LF	61.04		25,026.40	
21	10-INCH PVC PIPE AWWA C900 DR18	100	LF	87.14		8,714.00	
22	12-INCH PVC PIPE AWWA C900 DR18	195	LF	93.77		18,285.15	
22	STOCKPILE PAYBACK FOR 12-INCH PVC PIPE AWWA C900 DR18	-195	LF	53.20282		-10,374.55	
25	PAVEMENT SAWING	1,400	LF	3.00		4,200.00	
30	REPLACE CONCRETE SIDEWALK 4" THICK	4.75	SY	219.00		1,040.25	
33	8-INCH GATE VALVE	2	EA	3,544.21		7,088.42	
		Total					
		Payments/Credits					
		Balance Due					

Phone Number	Fax Number	E-mail	Web Site
435.462.5380	435.462.3745	jade.trbexc@gmail.com	www.terrybrothersonexcavating.com

Terry R Brotherson Excavating, Inc.

PO Box 158

95 W Main

Mt. Pleasant, UT 84647

**Invoice**

DATE	INVOICE #
8/2/2023	5088

BILL TO
309 - Moroni Culinary Water Improvements

		P.O. NO.		TERMS		PROJECT	
ITEM	DESCRIPTION	QTY	UOM	RATE		AMOUNT	
35	12-INCH BUTTERFLY VALVE	3	EA	5,046.72		15,140.16	
39	PRESSURE REDUCING VALVE REPLACEMENT 8-INCH	1	EA	45,432.00		45,432.00	
40	IMPORTED PIPE BEDDING	58	LF	5.16		299.28	
44	16-INCH DI PIPE CLASS 51	18	LF	397.42		7,153.56	
47	3- INCH GOOSENECK AIR VENT	1	EA	5,907.26		5,907.26	
50	18" SMOOTH LINED CORRUGATED ADS N-12 HDPE STORM DRAIN PIPE	40	LF	49.92		1,996.80	
53	CONCRETE STRUCTURE HEADWALL	1	LS	10,519.71		10,519.71	
55	WELL BUILDING STRUCTURE	0.5	LS	183,339.10		91,669.55	
56	WELL BUILDING EARTHWORK AND GRADING	0.5	LS	63,030.72		31,515.36	
59	WELL BUILDING ELECTRICAL	0.1	LS	255,433.20		25,543.32	
61	1" SERVICE CONNECTION	1	EA	1,224.00		1,224.00	
62	1" SERVICE LATERAL PIPE OR TUBING	30	LF	20.85		625.50	
63	1" SERVICE METER SETTER ASSEMBLY	1	EA	1,893.90		1,893.90	
64	1" METER	1	EA	601.76		601.76	
66	FLOOR DRAIN & SUMP ASSEMBLY	1	LS	5,549.00		5,549.00	
		Total \$543,977.53					
		Payments/Credits \$0.00					
		Balance Due \$543,977.53					

Due upon receipt unless approved credit has been prearranged. Credit terms: NET 30 DAYS. A finance charge of 1.5% a month (18% annual rate) will be charged on all accounts 30 days past due. Customer agrees to pay reasonable legal fees and, or any other collection costs incurred after default or referred to an attorney.

Phone Number	Fax Number	E-mail	Web Site
435.462.5380	435.462.3745	jade.trbexc@gmail.com	www.terryrbrothersonexcavating.com

**Miscellaneous
Culinary Water Improvements Project
Progress Report**

Moroni City Culinary Water Improvements 2022 Progress Report

8/15/2023

1. Preliminary Engineering Services – Phase 0001 – Lump Sum

This phase of the project is 100% complete and was previously invoiced.

2. Environmental Assessment - Phase 0002 – Lump Sum

This phase of the project is 100% complete and was previously invoiced.

3. Survey Services – Phase 0003 – Lump Sum

This phase of the project is 100% complete and was previously invoiced.

4. Geotechnical Investigation – Phase 0004 – Lump Sum

This phase of the project is 100% complete and was previously invoiced.

5. Well Design – Phase 0005 – Lump Sum

This phase of the project is approximately 69% complete. There were no tasks invoiced during this invoice period.

The following tasks are included in the contract:

- a. Preliminary Evaluation Report (PER): Prepare a PER for the new well and submit to DDW for review and approval before the well can be drilled. The PER will be prepared in accordance with the Utah Drinking Water Source Protection for Ground Water Sources Rule R309-600. As required, the PER will include a delineation report, an inventory of potential contamination sources, land ownership information, a land use agreement or zoning/DWSP ordinance section, and an optional section regarding the pesticide and volatile organic chemical (VOC) monitoring waivers. Land use agreement negotiations are not included as part of the work. ENGINEER will provide a land use agreement template document. (Partially Complete)
- b. Well Design Plans and Specifications for Construction: The new well will be designed in compliance with the relevant Utah Well Drillers Rule R655-4. The borehole drilling, well casing/screen installation, sand packing, surface sealing, well developing, pump testing, and other well construction procedures will be shown on the design plans and specified in the construction specifications. Design plans and construction specifications will be submitted to DDW. (Complete)
- c. Drinking Water Source Protection (DWSP) Plan: A DWSP plan will be prepared in accordance with the Utah Drinking Water Source Protection for Ground Water Sources Rule R309-600. The DWSP plan will incorporate data collected from the new well drilling and pumping test data and re-delineate the protection zones of the well and re-inventory potential contamination sources. Management programs will be developed. (Not Started)

6. Electrical Design – Phase 0006 – Lump Sum

This phase of the project is 100% complete and was previously invoiced.

7. Preliminary Design – Phase 0007 – Lump Sum

This phase of the project is 100% complete and was previously invoiced.

8. Final Design – Phase 0008 – Lump Sum

This phase of the project is 100% complete and was previously invoiced.

9. Procurement – Phase 0009 – T&M

This phase of the project is 100% complete and was previously invoiced.

10. Construction Services - Phase 0010 – T&M

Approximately 69% of the budget has been used. There was work completed on this phase during the last invoice period. Reviewed and logged American Iron Steel product information. Product submittals, construction administration, Davis Bacon wage rate interviews, UDOT coordination, contractor coordination for directional drill.

The following tasks are included as part of the project:

- a. Conduct construction administration, project management and engineering services during well construction. This includes preparing change orders, preparing pay requests, progress reports and other administrative tasks as required. (Complete)
- b. Conduct Construction engineering a design services. (Mostly Complete)
- c. Assist and supervise the pump testing of the production well. (Complete)
- d. Construction observation for the production well. (Complete)
- e. Conduct construction administration, project management and engineering services for the main project. This includes preparing change orders, preparing pay requests, progress reports and other administrative tasks as required. (Partially Complete)
- f. Construction observation for the main project. (Not Complete)
- g. Prepare construction record drawings for the completed construction project. (Not Complete)
- h. Perform warranty phase services and inspection during the warranty phase period of the project. (Not Complete)

Per diem

7/5/2023 - 7/7/2023: \$48.00 – Lunch for Observer

7/11/2023 - 7/13/2023: \$48.00 – Lunch for Observer

7/17/2023 - 7/20/2023: \$48.00 – Lunch for Observer

7/25/2023: \$12.64 – Lunch for PM

Mileage

Construction Engineering Main Project

7/06/2023 – 130 miles – Drive to and from jobsite for construction observation

7/10/2023 – 130 miles – Drive to and from jobsite for progress meeting

7/12/2023 – 54 miles – Drive to and from jobsite for construction observation

7/18/2023 – 75 miles – Drive to and from jobsite for construction observation

7/19/2023 – 112 miles – Drive to and from jobsite for construction observation

7/20/2023 – 75 miles – Drive to and from jobsite for construction observation

7/25/2023 – 130 miles – Drive to and from jobsite for progress meeting

RPR Main Project Mileage

7/5/2023 – 170 miles – Drive to and from jobsite for construction observation

7/6/2023 – 170 miles – Drive to and from jobsite for construction observation

7/7/2023 – 170 miles – Drive to and from jobsite for construction observation

7/10/2023 – 170 miles – Drive to and from jobsite for construction observation

7/11/2023 – 170 miles – Drive to and from jobsite for construction observation

7/12/2023 – 170 miles – Drive to and from jobsite for construction observation

7/13/2023 – 170 miles – Drive to and from jobsite for construction observation

7/17/2023 – 170 miles – Drive to and from jobsite for construction observation

7/18/2023 – 170 miles – Drive to and from jobsite for construction observation

7/20/2023 – 170 miles – Drive to and from jobsite for construction observation

7/25/2023 – 170 miles – Drive to and from jobsite for construction observation

7/26/2023 – 150 miles – Drive to and from jobsite for construction observation

7/27/2023 – 170 miles – Drive to and from jobsite for construction observation

11. Construction Staking – Phase 0011 – LS

This phase of the project is 80% complete. There were no tasks invoiced during this invoice period.

The following tasks are included as part of the project:

- a. Conduct construction staking prior to construction. Provide construction survey staking to locate tanks, structures, buildings, piping and other features as required. (Not Complete)

12. Water Rights – Phase 0012 – Lump Sum

This phase of the project is 100% complete and was previously invoiced.

13. Water Conservation and Management Plan– Phase 0013 – Lump Sum

This phase of the project is 100% complete and was previously invoiced.