

October 31, 2019

SENT VIA ELECTRONIC MAIL

Mr. Keith Whittington, City Engineer
City of Marquette
1110 Wright Street
Marquette, Michigan 49855

Re: *Contract Addendum Number 1 to TriMedia Proposal Number 2019-5884* – Professional Environmental Consulting and Technical Services to Install Temporary Monitoring Wells in Marquette, Michigan
TriMedia Project Number 2019-228

Dear Mr. Whittington:

TriMedia Environmental & Engineering Services, LLC (TriMedia) is submitting this *Contract Addendum Number 1* to amend our existing contract with the City of Marquette in order to install four test wells in support of the upcoming utility relocation project in Marquette, Michigan.

ADDENDUM SCOPE

This proposed *Contract Addendum Number 1* presents a detailed summary of each of the anticipated tasks to be completed, as well as applicable cost and proposed project schedule. We understand that the City of Marquette is requesting a cost estimate for installing four temporary monitoring wells at locations identified on the *Test Well Maps* provided via email on October 29, 2019. We understand the City of Marquette needs to collect and analyze samples for the wastewater treatment plant to determine the chemical concentrations and how much of the dewatering can be treated per day. The following scope-of-service has been developed in accordance with information made available to-date from the City of Marquette:

Scope-of-Service

Task 1: Utility Locating

Prior to mobilizing to the site, TriMedia will coordinate the location of underground utilities by contacting the MISS DIG System, Inc. Utility location services require 72-hours to fulfill before work may begin.

Task 2: Temporary Monitoring Well Installation

TriMedia will mobilize to the site to install up to four temporary monitoring wells up to approximately 16 feet below grade (bg). The temporary monitoring wells will be installed utilizing a track-mounted Geoprobe® 7822DT drilling rig equipped with 3.25-inch inside diameter direct push tooling. The wells will be constructed using 5-foot long by 0.75-inch

diameter, polyvinyl chloride (PVC) 0.010-inch slot well screen thread coupled to 5-foot long by 0.75-inch diameter PVC riser pipe.

Following well installation, TriMedia will develop the new monitoring wells using disposable polyethylene tubing and a peristaltic pump. The monitoring wells will be developed until purged groundwater appears relatively clear and free of sediment. Cuttings and development water will be discharged on-site.

Task 3: Groundwater Sample Collection

A groundwater sample will be collected from each temporary monitoring well using laboratory supplied and preserved containers. Upon completion of sampling activities, well materials will be removed, each boring will be properly abandoned with hydrated bentonite chips, and the surface will be restored to grade with like materials (concrete, asphalt cold patch, or topsoil). Non-disposable sampling equipment will be cleaned using an Alconox® detergent wash and potable water rinse prior to commencement of the project and between soil borings.

The groundwater samples will be placed in an ice chest to cool to approximately four degrees Celsius and submitted for analysis of the following parameters:

Inorganics	Organics	Compatibles
Antimony Arsenic Barium Boron Cadmium Chromium, Total Copper Available, Cyanide Lead Lithium Mercury Molybdenum Nickel Selenium Silver Vanadium Zinc	Benzene Dibenzofuran 2,4-Dimethylphenol Ethylbenzene 2-Methylaphthalene 4-Methylphenol Methyl tert butyl ether Naphthalene Tetrachloroethylene 1,2,4-Trimethylbenzene Toluene Xylenes	BOD5 TSS Total-P Ammonia-N FOG, Total FOG, Nonpolar

The samples will be transported via overnight courier to an independent laboratory under chain-of-custody protocol for analysis of the selected parameters. The samples will be submitted for normal turnaround time (five to seven business days) unless otherwise directed by the City of Marquette. Quick turnaround time (as quick as 24-hour) are available at additional cost.

PROPOSED SCHEDULE

TriMedia is prepared to complete these activities upon authorization and in conjunction with your schedule. We anticipate completing the field activities in one working day during the normal working hours of 7:00am to 5:00pm. If this proposed schedule does not meet your project needs, please contact TriMedia at your earliest convenience to discuss an alternate schedule.

ASSUMPTIONS

The following assumptions apply to this *Contract Addendum Number 1*:

- Depth of borings does not exceed approximately 20 feet bg;
- Bedrock or hard drilling will not be encountered whereby other drilling techniques will be required (e.g., rock coring, etc.);
- Soil and groundwater will not be containerized; and
- Work areas are accessible by track-mounted rig.

ADDENDUM COST

TriMedia has developed a not-to-exceed cost estimate of **\$3,615.00** to complete the scope of work presented herein and proposes to invoice the City of Marquette on a time and expense basis. In no case will the project estimate be exceeded unless so authorized by the City of Marquette in writing. In this way, should some of the project contingencies not be necessary, the City of Marquette will limit its project expenditures because TriMedia will only charge for those services required and expended during the project. A detailed schedule of fees is provided in the table below.

Item Description	Units	Estimated Quantity	Unit Price	Total Price
Project Management / One Call	Lump Sum	1	\$240.00	\$ 240.00
Mobilization	Lump Sum	1	\$250.00	\$ 250.00
Boring Advancement and Temporary Monitoring Well Construction	Feet	55	\$15.00 / foot	\$ 825.00
Well Development and Sample Collection	Each	4	\$85.00 / each	\$ 340.00
Laboratory Analysis	Lump Sum	1	\$1,960.00	\$1,960.00
Total				\$3,615.00

Upon your acceptance, please formalize your authorization to proceed by executing this proposed *Contract Addendum Number 1* below and returning it to TriMedia at your earliest convenience. All terms and conditions established at the onset of this project will remain unchanged. Should you have any questions regarding the strategic approach presented herein, please do not hesitate to contact me at (906) 228-5125, or via email at rwhaley@trimediaee.com.

Mr. Keith Whittington, City Engineer
City of Marquette
October 31, 2019
Page 4

Your Priority. Our Promise. On behalf of the professional staff at TriMedia, thank you for the opportunity to be of service on this project.

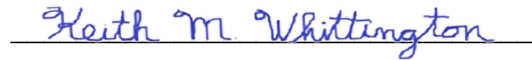
Sincerely,
TriMedia Environmental & Engineering Services, LLC



Ryan J. Whaley, CHMM, REHS
Senior Scientist / Project Manager

RJW/mlh
cc: TriMedia File 2019-228

CONTRACT ADDENDUM NUMBER 1 ACCEPTANCE


Keith Whittington, City Engineer

11-4-19

Date