

July 7, 2019

Jessica Koenig
Town Clerk
Town of Erie
645 Holbrook Street
P.O. Box 750
Erie, CO 80516

**RE: Attachment A
Erie Cemetery Mapping**

Dear Ms. Koenig,

Thank you for the opportunity to propose on the mapping and Ground Penetrating Radar (GPR) services required for the above referenced project. We appreciate the opportunity to work with you and provide mapping services. We have reviewed all available information, discussed our approach to the project and are confident that we can work closely with you to develop updated mapping.

On the following page, we have itemized the anticipated scope and estimate of fees to provide GPR locating and mapping services. We look forward to working with you on this project and please don't hesitate to call if adjustments or changes are required.

Respectfully Submitted:



Noah J Nemmers, PE
Manager of Civil Engineering

Project & Scope

PROJECT UNDERSTANDING

We understand the scope to be searching for marked or unmarked burials using Ground Penetrating Radar (GPR) combined with our land survey and mapping services. We utilize a subcontractor for the GPR work. Their findings would be painted or flagged on the surface at the time of the scanning. Please keep in mind that coffins, caskets, or burial vaults that are no longer intact will most likely not be able to be detected. There may also be false positives from other subsurface items such as rocks, soil changes, and previous excavations. We would combine the scanning efforts with our survey and mapping services to produce a map of the cemetery.

BASIS OF AGREEMENT

This Agreement is based on the understanding that the ENGINEER will be receiving:

- Access to the Site
- Any previous mapping or records of burial locations.

A.1 Statement of Services

BASELINE will provide the following professional engineering services:

SUBSURFACE LOCATING SERVICES

\$9,625 NOT TO EXCEED

The scope of work covers searching for marked or unmarked burials over the entire cemetery, which has an area of approximately 15 acres. The findings will be painted or flagged on the surface at the time of the scanning. A 400 MHz GPR Antenna will be used and the antenna is mounted in a stroller frame which rolls over the surface. The surface needs to be reasonably smooth and unobstructed in order to obtain readable scans. The data is displayed on a screen and marked in the field in real time. GPR works by sending pulses of energy into a material and recording the strength and the time required for the return of the reflected signal. Reflections are produced when the energy pulses enter into a material with different electrical properties from the material it left. The strength of the reflection is determined by the contrast in signal speed between the two materials. The total depth achieved can be as much as 8' or more with this antenna but can vary widely depending on the conductivity of the materials. Conductive soil types such as clay may limit scanning depths to 3' or less. As depth increases, targets must be larger in order to be detected and nonmetallic targets can be especially difficult to locate. Depths provided should always be treated as estimates as their accuracy can be affected by multiple factors.

SURVEY MAPPING

\$9,864 Lump Sum

Baseline surveyors will visit the site to pick up GPR markings for the entire 15 Acres and also pick up any improvements such as roads, burial monuments, and headstones. Baseline will create a map for the Town of Erie noting the location of all surface improvements and any un-marked burial locations Identified by the GPR Equipment. This fee does NOT include a boundary survey.

ADDITIONAL SERVICES

These costs should cover all fees to our office associated with GPR locates and mapping for the project area. The fee assumes approximately a week of GPR locate services and a week of survey mapping and CAD drafting. Additional services and expenses will be in addition to the above stated fees.

SITE LOCATION



A.2 Project Schedule

Baseline will commence work immediately upon contract execution.

A.3 Deliverables

- Existing Cemetery Map
- CAD files

A.4 Additional Services

Additional Services may be provided if authorized by Client in writing. Additional Services shall be paid by Client as provided in the Agreement, in addition to the compensation for Baseline's basic services.

A.5 Provisions Applicable to All Services

A.5.1 Certifications. Baseline shall be under no duty or obligation to execute any instruments, no matter by who requested, that would result in Baseline having to certify, guarantee or warrant the existence or nonexistence of conditions that Baseline cannot ascertain, or that were not within the scope of services. When a certification by Baseline is within the scope of its services or otherwise made, such certification means an expression of Baseline's professional opinion based on its

information, knowledge and belief. It does not constitute a warranty or guarantee or have any meaning expanded beyond the foregoing definition.

A.5.2. Accurate Data. Unless the scope of services in Attachment A includes an explicit undertaking by Baseline to confirm the accuracy of plans, drawings, specifications, criteria, maps, surveys or other documents or information furnished by or on behalf of Client (“**Client Data**”), Baseline shall be entitled to rely upon Client Data as accurate and correct without investigation. If subsequent errors are discovered in Client Data which necessitate re-performance of services, Baseline shall be compensated for such extra services in accordance with Section 3. Baseline shall not be liable for errors or omissions in Client Data.

A.5.3. Extra Services. Extra services by Baseline to modify its services or deliverables to meet any Client imposed cost limitation shall entitle Baseline to additional compensation in accordance with Section 3.

A.5.4. Contractors’ Work. Design review, construction observation, or quality assurance services performed by Baseline shall not guarantee the performance of and Baseline shall not have responsibility or liability for damages arising from the acts or omissions of any contractor, subcontractor, supplier or any other entity or person furnishing materials or performing any work on the Project.

A.5.5. Electronic Data. The following is applicable if Baseline provides Client with electronic data created by Baseline for the Project, including, as applicable, CAD files and BIM data (collectively, “Electronic Data”). Electronic Data does not include vendor, fabricator, contractor or any third party supplied electronic data.

Subject to the scope of services, Baseline will make Electronic Data in an original format produced by Baseline available to Client at the end of Schematic Design Phase, the end of Design Development Phase, the end of the Construction Document Phase, and at the time Construction Bid Packages are issued, as applicable. When distributing Electronic Data, Client agrees to make its use by third parties subject to the following conditions (the “**Disclaimer**”):

Recipient acknowledges and agrees to the following by its acceptance or utilization of the Data (defined below) and to the additional terms and conditions of Section 6 of the Agreement between Baseline and its Client on the Project:

Designs, drawings, calculations, specifications, Electronic Data, CAD files and similar services, in either electronic or hard copy form, prepared by Baseline are instruments of service for use solely on the Project (collectively, “**Data**”). Data does not constitute the sale or delivery of products or goods. Baseline, owner of the Data, retains all reserved rights, including copyrights. Use or reuse of Data after termination of the Baseline/Client Agreement or upon suspension or completion of the Project are at recipient’s sole risk and without liability to Baseline, and each recipient waives all claims against (regardless of the legal theory) and agrees to indemnify, defend and hold Baseline harmless from any and all claims, damages, losses, liabilities and expenses, including attorney fees and expert and consulting fees, arising out of or

resulting from such use. No privity of contract with Baseline is created by access to Data, and no independent right of action against Baseline or its personnel is created thereby including, without limitation, third-party beneficiary or fiduciary status. There are no warranties or guaranties, either express or implied, of any kind, nature or type whatsoever (including those of condition, merchantability, suitability and fitness for a particular purpose or use) regarding the Data, and all such warranties and guaranties are expressly disclaimed. Electronic transfer from one system to another can generate errors in Data, thereby making it unreliable; consequently in the event of a difference between Data and hard-copy Construction Documents, the later controls.

Electronic Data constitutes Confidential Information. Baseline will transfer Electronic Data in accordance with its customary practice under the circumstances which may include electronic mail, File Transfer Protocol sites, secure project websites, or disc copies. Because the current state of technology does not allow for transfer from one system or format to another without the possibility of generating errors: (1) no representation or warranty, express or implied, can be or is made regarding the reliability or accuracy of Electronic Data; (2) in the event of a difference between Electronic Data and hard-copy Construction Documents, the later controls; (3) Client agrees Baseline is not liable for, and Client waives claims against, and agrees to indemnify, defend and hold Baseline harmless from any and all claims, damages, losses, liabilities and expenses, including attorney fees and expert and consulting fees, arising out of: (a) Client's failure to make use of Electronic Data by third parties subject to the Disclaimer; (b) Client's transfer of Electronic Data by any means; (c) use, modification or misuse of the Electronic Data by parties other than Baseline; (d) the limited life expectancy and decline of accuracy or readability of the Electronic Data over time; (e) use of electronic Data by third parties receiving it; (f) the incompatibility of software or hardware used by Baseline. Client agrees to include language similar to the foregoing in its agreements with other firms working on the Project who will have access to Electronic Data.