



**DEPARTMENT OF THE AIR FORCE  
56TH CIVIL ENGINEERING SQUADRON (AETC)  
LUKE AIR FORCE BASE, ARIZONA**

**STATEMENT OF WORK**

Locate Underground Utilities on Luke AFB using GPR Technology

Luke Air Force Base, Arizona

07/06/2022

**1. OVERVIEW**

This project is to locate all the underground utilities under the travel corridors, parking lots, and the shoulders when practical, depicted on the attachment 1. Contractor to use the ground penetrating radar (Impulse Raptor technology or equal) and electromagnetic locating to perform this work. The work performed/deliverables provided to the client upon the contract completion should be in compliance with the ASCE 38-02 level B.

**2. DESCRIPTION OF WORK**

- 2.1. This project includes all necessary site preparation, due diligence and temporary traffic control if applicable.
- 2.2. Performance Period: all work shall be completed within 240 calendar days after the Notice to Proceed is issued.
- 2.3. Client, the USAF will provide the existing database (GIS) depicting all the known utilities if requested by the contractor. Note, that the purpose of this contract is to verify the integrity of the existing database and locate the unknown utilities. The client will provide the 2019 Aerial view of the base if requested. Both the aerial and the GIS database are unclassified controlled information and should be treated in accordance with 32 CFR Part 2002 and applicable agency policy. Access to and dissemination of Controlled Unclassified Information shall be allowed as necessary and permissible to any individual(s), organization(s), or grouping(s) of users, provided such access or dissemination is consistent with or in furtherance of a Lawful Government Purpose and in a manner consistent with applicable law, regulations, and Government-wide policies.
- 2.4. Contractor is to provide their temporary traffic control if necessary. Note, Luke AFB is typically experiencing very light traffic volumes.
- 2.5. Contractor is to survey the road shoulders if practical as most of the utilities mains are located in those areas.
- 2.6. Sanitary sewer lines and storm sewer lines shall not be located using electromagnetic rodder insertions. Instead, all the manholes, inlets, clean-outs, etc. shall be surveyed used GPS or traditional survey instrument and used to interpolate the linework into the CAD.

**3. Deliverables**

- 3.1. Per project objective, the deliverable should be in compliance with the ASCE 38-02 quality level B.
- 3.2. All the deliverables should be in the WGS84 UTM12N datum and projection. The client will provide the on-site control point if requested.

- 3.3. At the very minimum, the final deliverable package should include the georeferenced tiff file generated upon the completion of the GPR survey (GeoTIFF), raw survey files, the georeferenced CAD map file along with the PDF report map clearly showing the horizontal alignments of the detected underground anomalies as well as the reasonable interpretation of said anomalies. Provided CAD/PDF map should have a clear legend calling out the identified utilities. Unknown utilities should also be marked on the CAD/PDF map. The provided tiff file should be configured to display the underground anomalies at the optimal depth.
- 3.4. Provide a PDF report outlining the work performed, challenges encountered and the findings.

**END STATEMENT OF WORK**