

Technical Demonstration – Video Submission

IT Analyst Principal – GIS

Overview

As part of the selection process, candidates will complete a technical demonstration to showcase applied GIS expertise and hands-on proficiency. Candidates will select two (2) topics from a list of seven (7) GIS technology topics and submit one video per selected topic. Each video must be 10–12 minutes in length and demonstrate actual use of GIS software or platforms. Videos must be uploaded to YouTube (Public or Unlisted) and the two video URLs must be submitted by Noon PST on Monday, January 26th. The technical demonstration is evaluated independently and may be referenced during the interview if relevant. Candidates should be prepared for a full in-person interview regardless of video content.

Purpose of the Technical Demonstration

This exercise is intended to assess depth of technical GIS knowledge, ability to apply GIS tools to real-world or enterprise scenarios, quality of spatial analysis or cartographic output, familiarity with modern GIS platforms and workflows, and ability to clearly explain technical work.

Video Content Requirements (Per Topic)

Context (1–2 minutes): Description of the problem, use case, or scenario and explanation of the selected approach and tools.

Technical Demonstration (6–8 minutes): Screen-recorded demonstration showing actual use of GIS software or platforms. Slides alone are not sufficient.

Results and Explanation (2–3 minutes): Display of final output and explanation of decisions, assumptions, and outcomes.

Technical Topic Options (Select Two)

1. Advanced Spatial Analysis and Modeling
2. Cartographic Design and Data Visualization
3. Web GIS Application or Dashboard Development
4. Automation, Scripting, or Workflow Optimization
5. 3D GIS, Imagery, or Advanced Visualization
6. Enterprise GIS Architecture and Data Management
7. Agentic Artificial Intelligence and GIS

Submission Requirements

Videos must be uploaded to YouTube (Public or Unlisted). Two (2) video URLs must be submitted by the stated deadline. Candidates must not use proprietary, confidential, or restricted data. URL's should be emailed to Stewart Bruce at sbruce@solanocounty.gov.

Accessibility

Candidates who require reasonable accommodations to complete this exercise may contact Stewart Bruce prior to the submission deadline.

Technical Demonstration Scoring Rubric

Criteria	Excellent (5)	Good (3)	Needs Improvement (1)
Technical Depth	Demonstrates expert-level mastery of the selected technology, including advanced techniques and sound technical judgment.	Demonstrates solid and competent technical skills with minor gaps or limited depth.	Demonstrates limited, incorrect, or superficial technical understanding.
Use of GIS Tools	Uses GIS tools and platforms effectively, correctly, and efficiently for the stated purpose.	Uses appropriate tools correctly but with inefficiencies or missed opportunities.	Uses inappropriate tools or demonstrates incorrect or inefficient usage.
Analysis / Output Quality	Produces high-quality, well-designed outputs that clearly support analysis or decision-making.	Produces adequate outputs that meet basic expectations but lack polish or depth.	Produces unclear, low-quality, or incomplete outputs.
Communication	Explains concepts clearly and concisely with a logical structure appropriate for technical and non-technical audiences.	Explanation is generally understandable but may lack clarity or structure.	Explanation is unclear, poorly organized, or difficult to follow.
Relevance to Role	Strongly aligned with enterprise or public-sector GIS needs and Principal-level responsibilities.	Moderately aligned with the role and demonstrates some relevance.	Limited relevance to enterprise or public-sector GIS work.