



## ENGINEERING ASSISTANT- GIS

**AGENCY/DEPARTMENT:**  
Public Works/Utilities

Approved By HR Director: *Bob Heitzman*  
Date Approved: 6/30/04  
Date of Last Revision:

Reports to: Varies  
Supervises: N/A  
Conflict of Interest Code Filer:

**JOB SUMMARY:** Under general supervision, performs specialized technical engineering work in the operation and maintenance of a geographic information system (GIS); and performs other related work as necessary.

### EXAMPLES OF ESSENTIAL FUNCTIONS:

1. Maintains and updates the City's water and sewer GIS databases through coordination with construction and operation activities.
2. Reviews proposed residential, commercial, and industrial developments with respect to water and sewer systems for compliance with City codes and standards.
3. Coordinates proposed developments and projects with operations staff.
4. Assists with the design and drafting of construction plans, specifications, and exhibits.
5. Performs periodic field reviews.
6. Creates and updates customized maps and reports using GIS and linked database information.
7. Assists other users with accessing and utilizing the GIS database.
8. Identifies and corrects discrepancies in supplied and missing data, legal descriptions, and engineering drawings.
9. Performs data entry and maintains database integrity.
10. Interprets information from recorded maps and other source documents.
11. Coordinates, inspects and monitors tasks being performed on public improvement projects in comparison with contracts, specifications and work requirements.
12. Meets with contractors and consultants to review project status.
13. Trains, assigns and checks the work of other technical engineering support personnel.
14. Prepares, and reviews a variety of project, progress and construction reports and exhibits for review by professional and managerial staff.
15. Participates in field land surveys and analysis.
16. Researches and provides information related to tract maps, plans, specifications and engineering requirements in response to public and private inquiries.
17. Prepares various agenda reports and project reports.

### QUALIFICATION GUIDELINES:

**ANY COMBINATION OF EDUCATION AND/OR EXPERIENCE THAT PROVIDES THE REQUIRED KNOWLEDGE, SKILLS, AND ABILITIES TO PERFORM THE ESSENTIAL FUNCTIONS OF THE POSITION. EXAMPLE COMBINATIONS ARE LISTED AS FOLLOWS.**

**EDUCATION:** Equivalent to an Associate's degree from an accredited college or university with coursework or specialized training in engineering, computer sciences, or related discipline.

**EXPERIENCE:** Two years technical operation of GIS/CAD systems.

**KNOWLEDGE OF:**

- Engineering report writing methods and record keeping practices.
- Engineering development and plan checking methods and techniques.
- Civil engineering principles and practices.
- Project management and contract administration practices.
- Supervisory methods and techniques.
- Public works construction methods and materials.
- Land surveying methods and practices.
- Moderate and advanced applications of GIS software; computer aided design software; and database; spreadsheet and word processing software; and other relevant software.
- Database management.
- Advanced mathematics through trigonometry.
- Surveying, hydraulics, and drafting.

**ABILITY TO:**

- Prepare clear and concise reports.
- Perform independent investigations, analysis, and research on City projects.
- Prepare and present clear concise findings and recommendations, orally and in writing.
- Read and interpret graphs, charts, plans, diagrams, and maps.
- Operate computer terminal and computerized software to produce a range of engineering documents and specifications.
- Make mathematical costs computations and engineering calculations using engineering formulas, computer and calculator.
- Effectively lead, assign and review the work of technical engineering personnel.
- Organize, assign and prioritize work and compile information in an efficient, accurate and timely manner.
- Communicate effectively and work cooperatively with co-workers, supervisors, other departmental representatives, management, other agencies, contractors, consultants, private representatives, officials, and the general public.
- Proficiently use GIS software ArcInfo and ArcView, and Autocad ar other relevant software.
- Proficiently use database software, spreadsheet, and word processing software.
- Prepare maps and graphics.

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**LICENSES:**

- Possession of a valid Class C California driver's license
- Acceptable driving record at time of appointment

**CERTIFICATIONS:**

**SPECIAL REQUIREMENTS:**

**DESIRABLE:**

- Bachelor's degree in engineering, computer sciences, or related field.
- Experience with hydraulic modeling software.

**FLSA Exemption Status:** Non-Exempt

**Employee Unit:** San Bernardino Public Employees Association

**DOT Program Participant:** No

**Job Family:** Engineering- Professional

**Career Progression:**     Engineering Aide  
                              Engineering Assistant / Engineering Assistant GIS  
                              Assistant Engineer  
                              Associate Civil Engineer  
                              Associate Engineer