**DEPARTMENT** : ENGINEERING  
**SALARY** : See Contract  
**FLSA** : NON-EXEMPT  
**CIVIL SERVICE** : INCLUDED  
**BARGAINING UNIT** : MUNICIPAL EMPLOYEES LOCAL #177  

**GENERAL STATEMENT OF DUTIES**  
Technical position responsible for performing computer-aided (CAD) and conventional drafting using database and road design software and for using reproduction equipment for a variety of public works projects. The work is performed under the general direction of professional engineering staff, but considerable leeway is granted for the exercise of independent judgment and initiative. No supervisory responsibilities.

**EXAMPLES OF ESSENTIAL FUNCTIONS**  
(Illustrative Only)  
These functions are considered essential for successful performance in this job classification.

<table>
<thead>
<tr>
<th>Example</th>
<th>Description</th>
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<tbody>
<tr>
<td>1.</td>
<td>Draws &quot;as-builts&quot; into permanent plat book records.</td>
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<tr>
<td>2.</td>
<td>Draws new maps and revises existing official record maps using land survey descriptions.</td>
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<td>3.</td>
<td>Draws street and sewer plans, profiles, cross-sections, details and other items needed for construction projects.</td>
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<td>4.</td>
<td>May prepare public works assessment schedules and material and develop cost allocations on City construction projects.</td>
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<td>5.</td>
<td>May provide information on preliminary and final assessment notices for affected property owners.</td>
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<td>6.</td>
<td>Assists in assignment of official house or building numbers.</td>
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<td>7.</td>
<td>Upon request, provides public information regarding maps and other data.</td>
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<td>8.</td>
<td>Prepares various types of sketches and drawings for other City departments.</td>
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<td>9.</td>
<td>May assist engineering technicians in inspection-related work in the field and office including inspections of public works projects, assisting in upkeep of pavement management system, surveying and other engineering projects.</td>
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<td>10.</td>
<td>Uses triangle, T-square and other drafting tools.</td>
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<td>11.</td>
<td>Reads, analyzes and records complex technical data and computations; prepares written reports, completes forms and performs required record keeping.</td>
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<td>12.</td>
<td>Performs duties inside and outside.</td>
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<td>13.</td>
<td>Works in a variety of weather extremes, excessive noise, electrical and mechanical hazards; work environment may be dusty and dirty; terrain may be wet, slippery or uneven.</td>
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<td>14.</td>
<td>Climbs and works at heights up to fifteen (15) feet.</td>
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<tr>
<td>15.</td>
<td>Lifts, carries, pushes/pulls surveying and testing equipment weighing up to one hundred (100) pounds (may request assistance as needed).</td>
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<td>16.</td>
<td>Uses engineering testing equipment and computes and records test results.</td>
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<td>17.</td>
<td>Operates passenger-type vehicle to visit inspection and survey sites.</td>
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<td>18.</td>
<td>Works independently and with others with minimum supervision.</td>
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<tr>
<td>19.</td>
<td>Performs work of a repetitive nature and...</td>
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</table>
varied workload pace.

20. Regular attendance on the job and at the worksite is required.

21. Performs all work duties and activities in accordance with City policies, procedures and OSHA, City and Engineering Department safety rules and regulations.

22. Performs all other related duties as assigned.

**REQUIRED KNOWLEDGE & ABILITIES**
1. Thorough knowledge of the standard practices, tools and techniques of CAD and conventional drafting and public works inspection.

2. Knowledge of land surveying.

3. Knowledge of drafting and GIS software.

4. Good knowledge of mathematics and ability to compute assessments.

5. Knowledge of municipal taxation principles.

6. Ability to learn street names and locations.

7. Ability to prepare clear, complete and accurate working plans and detail drawings from rough sketches for engineering purposes; ability to prepare drawings from field notes and plat records.

8. Ability to communicate with and give advice and recommendations to coworkers, the public, contractors and supervisors tactfully and promptly, in a clear, concise and easily understandable manner.

9. Ability to communicate effectively and maintain working relationships with other City employees, supervisors and the public.

10. Ability to read, analyze and record complex technical data and computations, prepare written reports, complete required forms and keep thorough and accurate records regarding assigned projects.

11. Ability to safely operate passenger vehicle; ability to observe and enforce appropriate safety precautions.

12. Knowledge of occupational hazards associated with and the safety precautions necessary when working at construction sites.

13. Ability to work with people from a broad variety of social, economic, racial, ethnic and educational backgrounds.

**ACCEPTABLE EXPERIENCE & TRAINING**
1. Associate’s Degree in Civil Engineering Technology or directly equivalent with training or experience in CAD; prefer minimum one year experience in CAD and public works design and engineering

OR
High school diploma/GED with minimum five years verifiable experience in computer-aided drafting and public works design and engineering.

OR
Any equivalent combination of education and experience that provides the knowledge, skills and abilities necessary to perform all aspects of the position effectively.

2. Good knowledge of mathematics as it pertains to engineering problems.

3. Iowa Driver’s License and good driving record based on City of Waterloo driver performance criteria. A candidate with any of the following will not be considered for employment: loss of license for any reason during the period of candidacy for employment, if the candidate remains without a valid, current license for the position when the City issues an offer of employment; loss of license, plea of guilty, plea of no contest or its equivalent or conviction for OWI, reckless driving or other major moving violation within the previous five years; four or more citations for moving violations within the previous three-year period, excluding speeding violations of 10 mph or less over the posted speed limit; three or more citations for
moving violations within the previous one-year period. After appointment to the position, disciplinary action or continuing employment status may be reviewed for the following: four or more moving violations within the previous three years, three or more moving violations within the previous one year or loss of license or conviction for OWI, reckless driving or other major moving violation within the previous five years; two or more at-fault accidents within a three-year period while driving on City business; a combination of three or more at-fault or not-at-fault accidents within a three-year period. An applicant’s driving record will be reviewed prior to an offer of employment and at least annually after hire.

**ESSENTIAL PHYSICAL ABILITIES**

1. Sufficient strength, mobility and flexibility to lift, carry, push or pull surveying and testing equipment weighing up to one hundred (100) pounds (may request assistance) and to climb and work at heights up to fifteen (15) feet.

2. Sufficient grasp/grip ability to handle drafting, inspection and survey tools and equipment.

3. Sufficient vision, depth perception, peripheral vision and hand/eye coordination to perform inspection, surveying and drafting duties and safely operate passenger vehicle in all types of weather and go to work sites all over town.

4. Sufficient hearing to understand verbal instructions, respond to questions from the public, hear traffic in work areas and communicate with coworkers in person, over the telephone or over a radio.

**MISCELLANEOUS**

1. Must wear personal protective equipment as needed such as safety eyewear, gloves, safety vest and safety shoes.

2. If choose to obtain a Commercial Driver’s License and assist with snow removal, must submit to Department of Transportation alcohol and drug testing requirements including pre-employment, post-accident, reasonable suspicion, random and return-to-duty/follow-up testing.

3. Following a conditional offer of employment, the City of Waterloo requires a physical examination by a physician of the City's choice, including a drug test, to determine if an applicant is capable of performing the essential functions of the job.

4. The City of Waterloo reserves the right to conduct a background investigation including employment and criminal history checks on any applicant being considered for this position.

5. Must submit to Civil Service examination procedures including a panel interview.

**WORK SCHEDULE**

Generally 8:00 a.m. – 5:00 p.m. Monday through Friday with one hour unpaid lunch break. Overtime possible, especially during construction season, which may include weekend work.

**DRAFTSPERSON DESCRIPTION**

11 August 2011