

ENGINEERING TECHNICIAN

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 inspection related work in the field and office on a variety of public works projects. The work is performed under the general direction of a higher-level engineer but considerable leeway is granted for the exercise of independent judgment and initiative. May supervise or direct part time or seasonal employees.

EXAMPLES OF ESSENTIAL FUNCTIONS (Illustrative Only)

These functions are considered essential for successful performance in this job classification.

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| <ol style="list-style-type: none">1. Conducts inspections of a variety of public works projects.2. Assists in conducting inventory for and upkeep of pavement management system.3. Uses GPS total station, transit, level and other survey tools.4. Performs conventional and computer-aided drafting (CAD); uses database and road design software.5. Keeps thorough and accurate field notes of each assigned project.6. Reads, analyzes and records complex technical data and computations; prepares written reports, completes forms and performs required record keeping.7. Reviews permit requests; issues permits and inspects work for conformance to contracted and City standards.8. Responds to complaints and answers requests from the public regarding project information and schedules.9. Participates in the preparation and maintenance of street, sewer and water records. | <ol style="list-style-type: none">10. Performs inspections of street, sewer and sidewalk construction work.11. Establishes and maintains grade stakes.12. Makes note of "as built" conditions.13. Applies precise engineering knowledge gained through training and experience.14. Exercises independent judgment in solving field and office problems.15. May direct and supervise part time and seasonal employees and orient new employees.16. Performs duties inside and outside.17. 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.18. Climbs and works at heights up to fifteen (15) feet.19. Lifts, carries, pushes/pulls surveying and testing equipment weighing up to one hundred (100) pounds (may request assistance as needed).20. Uses engineering testing equipment and computes and records test results.21. Operates passenger-type vehicle to visit inspection and survey sites. |
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22. Works independently and with others with minimum supervision.
23. Performs work of a repetitive nature and varied workload pace.
24. Regular attendance on the job and at the work site is required.
25. Performs all work duties and activities in accordance with City policies, procedures and OSHA, City and Engineering Department safety rules and regulations.
26. Performs all other related duties as assigned.

REQUIRED KNOWLEDGE & ABILITIES

1. Thorough knowledge of the standard practices, tools and terminology of the engineering and public works inspection trade.
2. Knowledge of engineering practices, land surveying and drafting techniques.
3. Ability to prepare drawings from field notes and plat records.
4. Adequate knowledge of mathematics and ability to make independent investigations of engineering problems as it relates to public works projects.
5. 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.
6. Ability to communicate effectively and maintain working relationships with other City employees, supervisors and the public.
7. Ability to read, analyze and record complex technical data and computations, prepare written reports, complete required forms and keep thorough and accurate records regarding work performed.
8. Ability to plan, assign, supervise and review work of part time and seasonal employees.

9. Ability to safely operate passenger vehicle; ability to observe and enforce appropriate safety precautions.
10. Ability to use independent judgment to recognize and solve problems as they occur.
11. Knowledge of occupational hazards associated with and the safety precautions necessary when working at construction sites.
12. Ability to work with people from a broad variety of social, economic, racial, ethnic and educational backgrounds.

ACCEPTABLE EXPERIENCE & TRAINING

1. Graduate of an accredited college or university with a Bachelor's Degree in Civil or Construction Engineering with major course work in construction or municipal engineering

OR

Graduate of a technical school or community college with an Associate of Applied Science Degree in Civil Engineering Technology or a directly equivalent degree and prefer minimum one (1) year experience in public works design, engineering and public works inspection

OR

High school graduate/GED with minimum five (5) years experience in public works design, engineering and public works inspection.

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. Pavement Management System (PMS) experience very desirable.
3. Nuclear Meter certification and IDOT Plant and Materials certification desirable.
4. General computer, database, computer-aided drafting (CAD) and road design software experience.
5. Good knowledge of mathematics as it pertains to engineering problems.

6. 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 to travel 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 cell phone.

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 7:30a.m. - 4:30 p.m. Monday through Friday with one hour unpaid lunch break. Overtime possible, especially during construction season, which may include weekend work.