

CITY OF MADISON POSITION DESCRIPTION

CITY OF MADISON
HUMAN RESOURCES

2013 DEC -9 AM 8:23

1. Name of Employee (or "vacant"):

Vacant

Work Phone: 608-261-9128

2. Class Title (i.e. payroll title):

Surveyor 2

3. Working Title (if any):

Water Utility Survey, CAD, and Record Drawing Coordinator

4. Name & Class of First-Line Supervisor:

Peter Braselton, Computer Mapping/GIS Coordinator

Work Phone: 608-261-9834

5. Department, Division & Section:

Water Utility, Engineering Section, Mapping Group

6. Work Address:

119 E Olin Ave, Madison, WI 53713

7. Hours/Week: 38.75

Start time: 0700

End time: 1530

8. Date of hire in this position:

Currently Vacant due to a retirement

9. From approximately what date has employee performed the work currently assigned:

This position is currently classified as an Engineering Program Specialist 1. The intent is to revise the duties of the position to meet a need within the Utility for survey, CAD management and support, and record drawing management.

10. Position Summary:

This is responsible supervisory and/or specialized professional work within the Engineering Section of Madison Water Utility (MWU). The position serves as 1) MWU's construction record drawing program coordinator; 2) Surveyor Coordinator; 3) CAD lead and 4) Mapping Field Liaison. This position has responsibility for personally completing and reviewing consultant prepared pre-construction topographic surveys, updating MWU survey records, preparing easements for MWU facilities and plant, providing construction staking as needed for MWU construction projects, providing support and training in CAD software and hardware for the Section. The work of this position is characterized by the exercise of independent professional judgment, initiative, discretion, and program development and administration under the direction and guidance of the Engineering Section Mapping Supervisor and the MWU Principal Engineer.

11. Functions and Worker Activities: (Do NOT include duties done on an "Out-of-Class" basis.)

30% A. MWU Construction Record Drawing Program.

1. Work closely with MWU construction inspectors to efficiently and accurately gather field information to be incorporated into Utility records
2. Coordinate and perform post construction surveys.
3. Coordinate the creation of Electronic Record Drawings (ERD) from construction plans, post construction survey, and inspection records. Working with MWU inspection personnel and engineers, routinely review inspection record procedures and methods. Update and revise as necessary to improve efficiency.
4. Evaluate mobile computing, record collection practices, software and hardware requirements and other field measurement procedures and provide recommendations, update standard procedures, and provide training as necessary for the Engineering Section to stay abreast of latest technology.
5. Evaluate, update, and revise ERD methods and long term drawing storage.
6. Coordinate construction record information exchange with other sections of MWU, other City Departments, other governmental agencies, and the general public.
7. Work closely with other members of the Mapping Group to revise and update standard procedures and electronic format for the transfer of construction records.
8. Facilitate the transfer and update of facility record information from MWU operations to the Mapping Group
9. Other record drawing work as assigned and required

30% C. MWU Survey Coordinator

1. Coordinate all MWU survey to include but not be limited to:
 - a. Review existing pre-construction surveys for completeness and accuracy.
 - b. Survey topographic pre-construction surveys for "Water Only" construction projects.
 - c. Construction staking.
 - d. Surveying creating, and maintaining topographic maps of MWU facilities to meet MWU Mapping Group standards and goals..
 - e. Propose, create and maintain MWU easements.
 - f. Conduct property surveys as necessary.
2. Prepare and/or review utility survey drawings based on utility records to include but not be limited to profile drawings
3. Certify and Stamp Survey Drawings as required
4. Coordinate Utility Locate (ULO) work both pre and during construction. Transmit information to MWU engineering and field staff for analysis
5. Coordinate MWU survey needs and work with other City Agencies
6. Participate in coordination and evaluation survey efforts with other City Agencies.
7. Evaluate and recommend survey consultant proposals and contracts as needed
8. Other survey work as required and assigned

- 30% B. MWU Computer Automated Drafting (CAD) Lead
1. MWU CAD Lead to include but not necessarily be limited to:
 - a. Provide support to MWU CAD environment
 - b. Coordinate and standardize CAD environment with City Engineering and other Agencies
 - c. Support and standardize receipt and storage of CAD drawings from outside agencies, consultants and others.
 - d. Stay up to date on CAD standards and processes, evaluate new technology and techniques, and recommend upgrades
 - e. Coordinate and/or provide training to MWU CAD users to maintain proficiency, update processes and standards, and meet the CAD needs of MWU
 - f. Coordinate and support development of CAD Standards.
 - g. Assist Mapping Group Supervisor in evaluating and updating CAD software, CAD tools, and network operations
 2. Monitor and update CAD hardware as needed. Provide information to the Mapping Group Supervisor to budget for and replace MWU computer hardware
 3. Assist the Mapping Group Supervisor to maintain and upgrade plotters, scanners and other related equipment used in the MWU CAD environment
 4. Other duties as required and assigned

- 10% E. MWU Mapping Field Liaison
1. Maintain survey equipment
 2. Evaluate and recommend survey equipment and software including any associated upgrades
 3. Evaluate and recommend mobile computing and record keeping hardware and software
 4. Work closely with Utility locators, provide training as necessary, evaluate software and hardware options and make recommendations to the Mapping Group Supervisor and the Utility
 5. Work with other agencies to coordinate the efficient and effective exchange of information.
 6. Attend surveying meetings as the Utility representative
 7. Other duties as required and assigned.

12. Primary knowledge, skills and abilities required:

Thorough knowledge of surveying principles, techniques and legal requirements. Thorough knowledge of and ability to use computer software applicable to the duties of the position. Thorough knowledge of the use, adjustment and care of manual and computerized survey instruments. Thorough knowledge and understanding of route surveying principles. Knowledgeable of Public Works construction projects, construction surveying, and construction record surveying. Thorough knowledge of principles and practices of engineering drawing and drafting, including computer-aided drafting and GIS. Ability to keep records and prepare reports. Ability to work from oral and written instructions, plans and sketches. Ability to prepare and present technical information in an understandable format to a diverse audience. Ability to instruct and mentor other employees in survey and CAD techniques and standards. Ability to deal tactfully and professionally with internal staff, outside agencies, contractors, contractors' workers

and the general public. Ability to foster teamwork and cooperation in a rapidly changing and evolving environment. Ability to maintain adequate attendance.

Training and Experience:

Four (4) years of progressively responsible experience in the area of land surveying, including at least two years as "chief-of-party" of a recognized survey crew and/or two years of responsibility for land records. Two (2) years of progressively responsible experience in the area of computer automated drafting in the preparation and maintenance of maps and/or construction drawings. Such experience would normally be gained after graduation from an Associate Degree program in drafting, civil technology, surveying or a related field. Additional directly related education may be substituted for experience on a year-for-year basis. Other combinations of training and/or experience which can be demonstrated to result in the possession of the knowledge, skills and abilities necessary to perform the duties of this position will also be considered.

13. Special tools and equipment required:

CADD/GIS workstation, software and plotters.
Survey grade GPS and total station survey equipment.
Expert knowledge of CAD/GIS and related software.

14. Required licenses and/or registration:

Registration as a Land Surveyor by the State of Wisconsin at the time of appointment or the ability to obtain such registration within 6 months.

Valid Wisconsin driver's license.

15. Physical requirements:

Ability to work at computer work station and desk for long hours for up to and exceeding 8 hours per day for weeks at a time, to operate a motor vehicle, to get to and safely walk around active construction sites and be on site in all weather conditions for up to and exceeding 8 hours per day for weeks at a time. Moderate physical labor when in the field.

Ability to lift 50 pounds over head. Ability to lift and carry up to 40 pounds over rough terrain in all conditions for 100 yards several times per day.

16. Supervision received (level and type):

Supervised and directed by the Water Utility Mapping Group Supervisor and the Water Utility Principal Engineer

17. Leadership Responsibilities:

This position: is responsible for supervisory activities (Supervisory Analysis Form attached).
 has no leadership responsibility.
 provides general leadership (please provide detail under Function Statement).

18. Employee Acknowledgment:

- I prepared this form and believe that it accurately describes my position.
- I have been provided with this description of my assignment by my supervisor.
- Other comments (see attached).

EMPLOYEE

DATE

19. Supervisor Statement:

- I have prepared this form and believe that it accurately describes this position.
- I have reviewed this form, as prepared by the employee, and believe that it accurately describes this position.
- I have reviewed this form, as prepared by the employee, and find that it differs from my assessment of the position. I have discussed these concerns with the employee and provided them with my written comments (which are attached).
- I do not believe that the document should be used as the official description of this position (i.e., for purposes of official decisions).
- Other comments (see attached).



WATER UTILITY MAPPING GROUP SUPERVISOR

11/26/13

DATE



WATER UTILITY PRINCIPAL ENGINEER

11-26-13

DATE

Note: Instructions and additional forms are available from the Human Resources Dept., Room 501, City-County Bldg. or by calling 266-4615.