

TO: Personnel Board

FROM: Julie Trimbell, Human Resources

DATE: April 25, 2024

SUBJECT: Engineering Program Specialist 1 – Traffic Engineering (TE) Division

The Human Resources Department received a request from City Traffic Engineer Yang Tao and Computer Mapping/GIS Coordinator Eric Halvorson on February 28, 2024 to study the 1.0 FTE position #1235 of Engineering Program Specialist 1 (CG 16, Range 17), currently filled by Eric Poffenberger. Upon reviewing the updated and prior position descriptions, the current class specification and other related class specifications, conducting interviews with both Eric's, and a discussion with the City's Information Technology GIS subject matter expert IT Specialist 4, Aaron Cohen, I recommend position #1235 be recreated as a GIS Specialist 3 in CG18, Range 10.

Eric was hired by the City in 2014 as a Civil Technician 2 and was reclassified to an Engineering Program Specialist 1 in 2017. The Engineering Program Specialist 1 class specification describes:

...responsible **program coordination, project, and specialized field work** in a professional engineering environment. The work involves direct responsibility for **specialized programs, projects, and activities** relating to the support of engineering staff and projects. Positions at this level perform **technical and quasi-professional functions** such as conducting field surveys and evaluations, preparing plans and specifications, and coordinating regulated facilities/activities (e.g., underground storage tanks, waste oil collection, landfill monitoring, marking program, crash program, etc.). Under the limited supervision of a professional engineer or manager positions at this level function independently in area(s) of responsibility. The work may involve leading other staff on a temporary or permanent basis. [emphasis added]

Previously the position's main responsibilities (accounting for 75% of work) included maintaining and improving Traffic Engineering (TE) Computer Mapping and GIS records in both GIS and CADD environments and overseeing the City Count Program. Approximately five years ago, those main responsibilities changed to now include serving as the CADD Software Manager, managing the City Count Program, data integration/conversion, and overseeing plan design workflows/standards (accounting for 85% of work).

The CADD Software management responsibilities include user administration, licensing, staff training and technical assistance, installations and ongoing maintenance, coordination with other City agencies, and researching industry standards for improvements. This position is responsible for problem resolution, the creation of workflows, tools and maps, data transition from CADD to GIS environments, and quality control related to TE's CADD infrastructure data and has been deemed the subject matter expert of CADD workflows in TE. This higher-level professional role is beyond the scope of the Engineering Program Specialist classification and this work was previously managed by the Computer Mapping/GIS Coordinator.

The City Count Program involves managing the coordination between TE engineers and shop staff to obtain counts of various data points through count program software/hardware and then sharing this data both internally and with the Wisconsin Department of Transportation (DOT) and the Greater Madison Area Metropolitan Planning Organization on a shared software system and network. This position is the main point of contact with the state's DOT staff and the vendor coordinating software, managing hardware and technology purchases, integration and upgrades, reporting, and handling licensing. The position serves as TE's user administrator, develops training manual, conducts internal training and troubleshoots, performs quality control functions, researches industry standards for improvements, and maintains and publishes TE's Annual Volume Report. This too is professional-level work beyond the scope of an Engineering Program Specialist.

Another higher-level core work function is data conversion, which has been the sole responsibility of this position as it related to TE's CADD data for the past five years. This work is completed through the use of Feature Manipulation Engine (FME), a tool designed to integrate data between systems through extraction, transformation, and loading (ETL). Similar to writing programming scripts, FME is a complex tool that manipulates data for interoperability between MicroStation, CADD and GIS/Cityworks. This work is essential to TE staff to use data effectively within various City systems for asset and work management purposes.

This position also recently became responsible for quality control and leadership work oversight of Plan Design Workflows/Standards within TE. This involves monitoring and reviewing all Operations plans from engineers prior to issuance to ensure they comply with design standards and practices, and identifying and resolving workflow and production issues and inconsistencies with design staff and section heads.

The current job responsibilities of this position fall under the GIS Specialist series, which includes professional GIS and Computer Aided Design (CAD) work to aid in workflow development, asset management, operations and overall data management. In terms of the appropriate level, the GIS Specialist 1 is entry level performing more routine work and GIS Specialist 2 is the intermediate level with more independence and expertise, and neither appropriately reflect the level of work of this position. The GIS Specialist 3 and 4 are more advanced and describe:

GIS Specialist 3:

...**higher-level professional GIS/CAD work** performed in the office and/or field in connection with the design, management, and construction of a wide variety of projects. Assignments are received from a GIS Specialist 4 or supervisor who generally defines the scope of the work, reviews progress periodically and upon completion, and certifies the results, if necessary. This work may include a significant role in project based work creation and **some leadership responsibility** on specific projects, as assigned. The work is characterized by the **exercise of independent technical and professional judgment, the broader application of professional expertise, proficiency in the operational and procedural aspects of the work and City's processes, and with emphasis on the more technically complex and responsible activities.** As an agency's sole GIS employee, **serves as an operational subject matter expert** for their respective

agency staff by **responding to technical and software questions, vetting issues, and determining resolutions.** [emphasis added]

GIS Specialist 4:

...advanced-level professional GIS/CAD leadership and project supervision work performed in the office and/or field in connection with the planning, design, management and construction of a wide variety of projects. This position may also be responsible for **high-level scripting, programming** and data processing workflows. Work is performed with considerable emphasis on project leadership or technical leadership for the most complex and diverse GIS duties, functions and responsibilities, and includes **crafting the technical vision and guiding their agency path for GIS.** Assignments are received from a higher-level supervisor or section head and the work involves the application of independent professional judgment to define the project; determine the best methods of addressing the situation(s), including the assignment of project components to lower-level staff, and certification of the results. This work includes cross agency interaction. The work is performed under the general direction and coordination of a higher-level professional supervisor or section head and **regularly involves the supervision (assigning, reviewing and managing workload) of lower-level staff.** [emphasis added]

The GIS Specialist 4 is advanced level work on a broader scale, which the current position does not include:

- Regular assignment, prioritization, review and management of workload of lower-level staff;
- Assistance with budget development;
- Writing, developing and executing RFPs for complex projects;
- Development of the agency/section technology training and development plan;
- Maintenance and monitoring of the section's work plan;
- Crafting the technical vision and guiding the agency path for GIS/CAD.

These responsibilities are beyond the scope of the current responsibilities of this position, which align more closely with GIS Specialist 3 due to the work involving technical consultation, quality control, FME, data integration and management, software and system management, vendor relations and leadership. Based on the prior analysis, I recommend recreating position #1235 as a GIS Specialist 3 and reallocating the employee to the new position, within the Traffic Engineering Division budget. The reallocation was discussed with Local 6000 on May 17th and they are not opposed to such action for this particular position.

The necessary resolution to implement this recommendation has been drafted.

Editor's Note:

Effective Date: 3/3/2024

Compensation Group/Range	2024 Annual Minimum (Step 1)	2024 Annual Maximum (Step 5)	2024 Annual Maximum +12% longevity
16/17	\$69,197	\$79,847	\$89,428
18/10	\$79,458	\$95,494	\$106,953

cc: Tom Lynch – Director of Transportation
Yang Tao - City Traffic Engineer
Eric Halvorson - Computer Mapping/GIS Coordinator
Richard Marx, Local 6000 Representative