



## **VILLAGE OF HOFFMAN ESTATES**

### **JOB DESCRIPTION**

### **CIVIL ENGINEER II**

**EFFECTIVE DATE: 1/1/2017**

<b>DEPARTMENT:</b> Development Services / Engineering	<b>WORK LOCATION:</b> Village Hall		<b>FLSA STATUS:</b> Exempt
<b>CLASS CODE:</b> 7480	<b>RANGE:</b> 20	<b>PENSION:</b> IMRF	<b>UNION:</b> NU
<b>REPORTS TO:</b> Village Engineer	<b>LEVEL OF SUPERVISION RECEIVED:</b> General Direction		<b>LICENSE/CERTIFICATES:</b> Illinois Class D Driver's License IL P.E.

#### **SUMMARY:**

Performs engineering studies and assignments with responsibility for managing, planning, design, and construction on projects of varying scopes; serve as part of a team on large and diverse projects. May lead certain aspects of large projects or manage all aspects of small to mid-size projects. Reviews and inspects street rehabilitation operations and site development activities. Conducts complex plan review and construction inspection. May have role in coordinating some staff activities on certain aspects of selected tasks. Analyzes a variety of data to determine requirements to meet engineering objectives and comply with all current codes, best practices, and criteria. Leads team in field surveys and instructs on use of equipment to collect data. Calculates design requirements; prepares layouts, details, specifications, estimates and procedures according to engineering principles and required criteria. Assembles and/or assists with bid packages; reconciliation and coordination of accounts, bills and pay estimates for projects; and works with the public and Village Departments to resolve engineering concerns.

Responds to and interacts with residents, employees, contractors, and others within and outside the organization in a courteous, professional, and effective manner.

<b>JOB NO.</b>	<b>ESSENTIAL JOB FUNCTIONS AND RESPONSIBILITIES</b>	<b>FREQUENCY</b>
1.	Serves major role in Village road construction projects, overseeing assigned tasks to ensure contractor compliance with plans, specifications, schedule, and budget parameters. Records data, takes measurements, performs inspections, and documents construction activities. Responds to public or contractor inquiries relative to engineering procedures on specific projects and other information.	Daily 75%
2.	Performs street design including profile using spreadsheet application and survey information to identify recommended solution. Designs horizontal and vertical street alignment including intersections; uses survey and topographic information to plan for drainage needs and identify recommended solutions. Lead or assist with field surveys, data collection, preparing plans, specifications, and estimates for bid packages. Uses design data and criteria to prepare drawings and details using AutoCAD software for bid packages.	
3.	Conducts or assists with engineering inspections on the construction of public and private improvements, such as water main, storm sewer, sanitary sewer, streets and grading. Reviews plans and specifications submitted by developers and other agencies or private parties for projects within the Village, generally of moderate to high complexity. Conducts inspections of new developments and subdivision improvements for compliance with the approved plans and specifications.	Daily 25%
4.	Drives a Village vehicle to the various project sites to accomplish survey, construction inspection, field studies, and project management of projects.	Daily 50%
5.	Conducts and / or directs engineering surveys, collects data to complement survey, and collection of topographic information required for the design and construction of Village projects. Plans and schedules various field activities. May oversee and coordinate other Village staff and / or contractor's work.	Weekly 10%
6.	Reconciles and coordinates the appropriate accounts, bills and pay estimates as received from contractors on Village projects. Prepares summaries of quantities and cost estimates for Village projects and assists with budget management.	Monthly 5%
7.	Assists with the preparation and review of professional engineering service requests (RFPs, RFQs). Prepares engineering plans and specifications for public bidding of Village projects. Coordinates required information needed to advertise for construction bids. Assists team with review of bids, proposals for professional engineering services, and makes recommendations for award of contract.	Annually 20%
8.	Inspection of public and private improvements for residential, non-residential and miscellaneous projects. Review of permit applications for site improvements on residential and commercial properties of generally moderate to high complexity.	Daily 20%
9.	Maintains infrastructure records / utility atlas. Assures as-built records of projects and documents necessary changes for the operation of maintenance programs.	Monthly 10%
10.	Maintains regular contact with consulting engineers, contractors, construction project engineers, Village, County, State and Federal agencies, professional and technical groups and the general public regarding Division activities and services. On certain projects, may be responsible for coordination with other agencies including IDOT, Cook County, Illinois Tollway, MWRD, IEPA, etc. Also works with other Village departments / personnel as needed including Planning Division, site plan review meetings, Public Works, Police, and Fire Departments.	5%
11.	Operates and properly maintains all tools and equipment needed to perform the essential job functions and responsibilities listed above while adhering to all safety rules and practices.	Daily

JOB NO.	OTHER RELATED DUTIES
1.	Assists with plan review and development inspections as needed. Projects may be related to private development, Public Works, or those being done by external agencies.
2.	May serve as a member of various employee committees.
3	Follows Village-wide and departmental safety rules and practices.
4.	Investigates and reports on complaints, concerns, problems, or inquiries from staff, residents, and elected officials.
5.	Performs other duties, tasks, and responsibilities as assigned by Village Engineer, Division Director, or Department Director.

**SUPERVISORY RESPONSIBILITIES: (Select one – required)**

☒ **X** None required

☐ Supervisory responsibilities are required to be carried out in accordance with the organization's policies and applicable laws. **(List specific responsibilities below)**

While not directly supervising staff, may assist with coordination of activities for contractors and some Division staff. Scheduling and coordination of work activities of seasonal engineering employees or other Division staff for certain aspects of projects. Project management may require direction to be provided to contractors doing work for the Village. Examples could include data collection, engineering surveys, documentation of contractor activities, and other project level tasks.

**EDUCATION, EXPERIENCE AND COMPUTER SKILLS:**

The designated education and experience levels best describe the minimum requirement needed to fulfill the essential job functions. However, any combination of equivalent education or experience may be considered.

**Education Level (Select one - required)**

- ☐ High school education with vocational training
- ☐ High school diploma or general education degree (GED)
- ☐ Two or more years of college coursework in related field
- ☐ Associate's degree (A.A.) from two-year college or technical school
- ☒ Bachelor's degree (B.S.) from four-year college or university
- ☐ Master's degree (M.A.)
- ☐ Doctoral degree (Ph.D)

Degree or coursework should be in...

**Civil Engineer**

**Experience Level (Select one - required)**

- ☐ No prior experience or training required
- ☐ Six months to one year related experience
- ☐ One to two years related experience
- ☐ Two to five years related experience
- ☒ Five to seven years related experience

**Additional Experience (Select as appropriate)**

- ☒ Experience in supervisory capacity...
- ☐ Experience in management capacity...
- ☐ Must meet the requirements as set by the Fire & Police Commission

**0-2 years desirable, not required**

**Enter number of years required here**

**Computer Skills (Select as appropriate)**

- ☒ Entry and processing of data
- ☒ Word Processing data
- ☒ Spreadsheet software
- ☒ Database software
- ☒ Specialized applications:

**IL P.E. license, AutoCAD Software, GIS Software**

**COMMUNICATION SKILLS:****English Language/Communication Skills (Select one)**

- ☐ Basic skills Ability to read, comprehend, listen to and follow basic verbal or written instructions and provide appropriate feedback. Ability to read, comprehend and/or create routine correspondence and memos using proper spelling, grammar, punctuation and sentence structure. Ability to effectively convey information one-on-one or to small groups of employees or customers.
- ☐ Intermediate skills Ability to read, comprehend, listen to and follow complex verbal or written instructions from multiple sources. Ability to provide appropriate feedback by asking probing questions and/or suggesting alternative approaches. Ability to read, comprehend, create and explain to others complex correspondence, reports and/or manuals. Ability to convey procedures and policies one-on-one or in groups to employees or customers.
- ☐ Advanced skills Ability to read or interpret all types of documents including safety rules and regulations, and procedure manuals. Ability to create and edit reports and correspondence from varied source material using appropriate style and format. Clearly convey instructions to employees or team. Ability to speak clearly and effectively before groups of customers answering questions appropriately.
- ☐ Business skills Ability to read, research, and analyze general business periodicals, professional journals, technical reports, finance documents or government laws and regulations. Ability to write reports, business correspondence, manuals and draft policies and procedures. Ability to effectively make presentations and respond to questions from groups of managers, customers, citizens, or other agencies.
- ☒ Specialized skills Ability to read, analyze and interpret professional, scientific, or technical manuals, procedures, plans, schematics, maps, blueprints, licenses, and/or legal documents. Ability to respond to inquiries from managers, customers, business community or regulatory agencies. Ability to draft responses to complex or technical issues and/or effectively present technical concepts or information to managers, customers, or other agencies in concise understandable terms.

**Foreign Language Skills (Complete if applicable)**

- ☐ Foreign language skills Ability to speak and/or read, write and comprehend...

☒ A Plus

☐ Preferred

☐ Required

**Enter language here**

**Required Language:**

**REQUIRED COMPETENCIES:**

To perform this job successfully, an individual must be able to perform each essential job function satisfactorily. The required competencies listed below are representative of the knowledge, skills, and/or abilities required for successful job performance.

**PROFICIENCY IN:**

Computer applications for word processing, spreadsheet, database applications.

Use of AutoCAD software and related applications.

Research, development and composition of comprehensive engineering reports.

Operation of listed tools and equipment including the use of civil engineering instruments and equipment.

Using quantitative skills; performing qualitative analysis.

Organizational skills to perform tasks effectively and efficiently.

Inspection of public improvements and documentation of construction activities.

**WORKING KNOWLEDGE OF:**

Civil engineering principles, practices and methods as applicable to a municipal setting.

Current trends and developments in the civil engineering field especially with respect to construction.

Applicable Village / other agency policies, laws, and regulations affecting division activities including IDOT, MWRD, IEPA, etc.

Construction techniques for land development and public works involvements.

**ABILITY TO:**

Maintain P.E. license.

Plan, design, lay out and execute the work to prepare related designs, estimates and specifications.

Lead group discussions, presentations to contractors and residents.

Develop individual and organizational leadership skills through training opportunities.

Serve as a mentor in areas of expertise for less experienced personnel and seasonal engineering employees.

Perform effectively in a team environment and serve as a leader for certain components of larger projects.

Initiate reviews and discussions of current practices and procedures for potential changes.

Work independently in executing tasks with little direction needed.

Work under difficult weather conditions and winter weather.

Analyze and perform difficult engineering computations.

Inspect public and private improvements in a construction environment.

Make comprehensive recommendations for the solution of engineering problems.

Review and interpret specifications, plans and reports.

Verify records, documents and survey.

Rate and determine applicable codes, regulations and requirements for all projects.

Communicate effectively, verbally and in writing.

**PHYSICAL DEMANDS:**

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job with or without reasonable accommodations.

(mark all 17 activities)

----- Amount of Time -----

<u>Physical Activity</u>	None	Less than 1/3	1/3 to 2/3	More than 2/3
Stands	_____	_____	_____	<u>X</u>
Walks	_____	_____	_____	<u>X</u>
Sits	_____	_____	<u>X</u>	_____
Uses fingers in a repetitive motion	_____	<u>X</u>	_____	_____
Uses hands to grasp, finger, handle, or feel	_____	<u>X</u>	_____	_____
Reaches with hands and arms above shoulder	_____	<u>X</u>	_____	_____
Climbs or balances	_____	<u>X</u>	_____	_____
Twists or turns	_____	<u>X</u>	_____	_____
Stoops, kneels, crouches, bends, or crawls	_____	<u>X</u>	_____	_____
Pulls, pushes, or carries	_____	<u>X</u>	_____	_____
Talks or hears	_____	_____	_____	<u>X</u>
Tastes or smells	_____	<u>X</u>	_____	_____
Operates a motor vehicle or heavy equipment	_____	_____	<u>X</u>	_____
Lifts or move 0 to 10 pounds (sedentary)	_____	<u>X</u>	_____	_____
Lifts or move 10 to 20 pounds (light)	_____	<u>X</u>	_____	_____
Lifts or move 20 to 50 pounds (moderate)	<u>X</u>	_____	_____	_____
Lifts or move 50 to 100 pounds (heavy)	<u>X</u>	_____	_____	_____

**VISION DEMANDS:**

The vision demands described here including the ability to adjust focus, close vision, sharpness of vision, depth perception, peripheral vision, distance vision, hand-eye coordination or as otherwise specified by the Board of Fire and Police Commissioners, are representative of those that must be met by an employee to successfully operate the tools and equipment needed to perform the essential functions of this job.

**Other Vision Demands (select if applicable)**

\_\_\_\_\_ Absence of color blindness

X Corrected vision of...

20/20

\_\_\_\_\_ Uncorrected vision of...

***Enter specific vision requirement here***

**WORK ENVIRONMENT:**

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job with or without reasonable accommodations.

<b>(mark all 15 conditions)</b> <b><u>Environmental Conditions</u></b>	----- Amount of Time -----			
	None	Less than 1/3	1/3 to 2/3	More than 2/3
Customary indoor conditions *	_____	<u>  X  </u>	_____	_____
Customary outdoor weather conditions including extreme cold, extreme heat, and wet or humid conditions *	_____	_____	<u>  X  </u>	_____
Non-weather conditions: extreme cold, extreme heat, and wet or humid conditions *	_____	<u>  X  </u>	_____	_____
Works near moving mechanical parts	<u>  X  </u>	_____	_____	_____
Works in high precarious places, underground, or confined spaces	_____	<u>  X  </u>	_____	_____
Flying debris or airborne particles	<u>  X  </u>	_____	_____	_____
Fire, smoke, fumes, gases, or noxious odors	<u>  X  </u>	_____	_____	_____
Toxic or caustic chemicals, aerosols, liquids, solvents or oils	<u>  X  </u>	_____	_____	_____
Risk of electrical shock	<u>  X  </u>	_____	_____	_____
Works with explosives or risk of radiation	<u>  X  </u>	_____	_____	_____
Vibration	_____	<u>  X  </u>	_____	_____
Extreme illumination	<u>  X  </u>	_____	_____	_____
Low noise level (Normal voice tones)	_____	_____	_____	<u>  X  </u>
Moderate noise level (Raised voice levels)	_____	_____	<u>  X  </u>	_____
High noise level (Shouting/ear protection may be needed)	_____	<u>  X  </u>	_____	_____

\* Time required in outdoor weather is determined by construction activities



The information listed above reflects minimum standards and illustrations of the various types of work that may be performed. The omission of specific job functions, requirements or tasks does not exclude them from the job if the work is similar, related or a logical extension of the work assigned.

This job description does not constitute an employment agreement between the employer and employee.

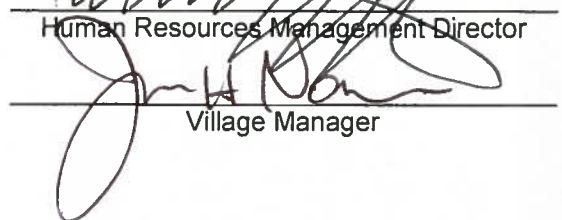
Recommended Approval:

  
Department Director

Reviewed Approval:

  
Human Resources Management Director

Approved:

  
Village Manager

Effective Date: 1/1/2017

Revision Date: \_\_\_\_\_