

GUIDE FOR HIRING A
COUNTY ENGINEER

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INTRODUCTION

For several years, the turnover rate of County Engineers in Iowa has been approximately five to ten per year. Thus, a County Board of Supervisors (Board) goes through the hiring process fairly infrequently. This document outlines the requirements and recommendations for filling a County Engineer vacancy. A committee, composed of an Iowa Department of Transportation (Iowa DOT) engineer, several County Engineers, the Iowa County Engineers Association (ICEA) Service Bureau, several County Supervisors, and a Human Resources Professional, was appointed to compile this information.

The County Engineer position is one of the most important in the county. Secondary roads are generally the largest item in a County's overall budget. Selecting a qualified County Engineer is important since this position will be very visible to the public. The Board should become familiar with this document, in order to have a more effective hiring process.

The County Engineer position is unique because the Board assigns a professional to have the responsibility of a department. Most other officials in the county are elected. The committee suggests initial steps to recruiting and hiring an engineer. The Board should be familiar with the duties and responsibilities of the position, and the applicants' attributes and professional skills before selecting the County Engineer.

BACKGROUND

Iowa Code Section 309.17 requires a county to employ a licensed civil engineer, who shall be known as the County Engineer. Iowa Code section [309.21](#) states, “All construction and maintenance work shall be performed under the direct and immediate supervision of the county engineer who shall be deemed responsible for the efficient, economical, and good-faith performance of said work.” Additionally, Iowa Code section [309.67](#) states, “The county board of supervisors is charged with the duty of establishing policies and providing adequate funds to properly maintain the secondary road system. The county engineer, pursuant to section 309.21 and board policy, shall adopt such methods and recommend such personnel and equipment necessary to maintain continuously, in the best condition practicable, the entire mileage of said system.”

Lastly, a 1948 Attorney General opinion states, “The law therefore contemplates a joint responsibility in the construction and maintenance of secondary roads. It contemplates that the board of supervisors and engineer will work together toward good secondary road construction and maintenance. There is no conflict of power, duty or authority. The supervisors have the power and the duty, not only to pass upon the necessity and desirability of the construction and maintenance work on such roads in their county, but also have the authority to direct the county engineer to proceed with the job. The manner and method or procedure is within the responsibility of the engineer, subject to the final inspection of the board and the engineer is responsible to the board to the extent of his efficient, economical and good-faith performance of the work directed to be done by the board of supervisors.”

In summary, the above referenced code sections, in conjunction with the Attorney General opinion, state that it is the responsibility of the board to set policy, provide funding, and direct projects to be undertaken, but the method and manner in which the work is completed is at the discretion of the Engineer. **Part of the Iowa DOT’s responsibility for ensuring the County Engineer’s Office is “equipped, organized, and financed to discharge satisfactorily” the work is ensuring that the County Engineer is being allowed to operate to the full extent of the job responsibilities, as described in the preceding passages.**

INTERIM COUNTY ENGINEERS

A Board may experience the need to hire an “interim” County Engineer. This can happen during the time period when the previous County Engineer has resigned or retired, and a new County Engineer has not been hired.

Generally, hiring an interim County Engineer can be accomplished by entering into an agreement with an adjacent county to temporarily share the services of their County Engineer. The adjacent County Engineer can periodically visit the vacant county to review claims and assist the crews with maintenance activities. Generally, a once per week visit should accomplish these tasks. If the vacant county has an active construction project, more time should be allotted for the adjacent County Engineer to check on the construction progress. Iowa Code Section 309.21 states that the County Engineer must be in charge of the construction and maintenance, and the time put in should be based on the time needed to oversee these activities, rather than a set number of days.

If the vacant county’s Board has not been able to secure an adjacent County Engineer to serve as the interim County Engineer, they may seek a non-adjacent, but relatively nearby, County Engineer to serve as the interim County Engineer. Another option might be to secure the vacant county’s licensed assistant engineer, or an adjacent county’s licensed assistant engineer. A last resort option would be to hire a consultant engineer to serve as the interim County Engineer, but only if the consultant engineer is the principal/president of his or her company and is personally named as County Engineer. Being the “principal/president” means the individual does not report to another individual at his or her firm.

Until a county secures a permanent County Engineer, or an interim sharing agreement with an adjacent County Engineer and has a definitive and finite plan in place for a permanent engineer, the Iowa Department of Transportation will not authorize the county to let any new projects through the Iowa DOT. These include, but are not limited to, all Farm-to-Market, State-aid, Federal-aid Swap, or Federal-aid projects for construction. Iowa Code Section [310.9](#) states that prior to authorizing any farm to market road project for letting, the Department shall satisfy itself that the County Engineer’s office is organized, equipped and financed to discharge satisfactorily the duties of Chapter 310. In addition, Federal requirements state that an agency must have a full-time person in responsible charge of a Federal-aid project. Without a permanent or interim County Engineer, these State and Federal requirements cannot be met.

ENGINEERS SHARED BETWEEN COUNTIES

Iowa Code Section 309.21 requires the Engineer to be in direct charge of the construction and maintenance of secondary roads and Iowa Code Section 309.19 allows an engineer to provide that service to one or more adjacent counties.

The provision for counties to share an engineer has been in the Iowa Code since 1971 but was not used until Mitchell and Worth Counties started sharing a County Engineer in February 1987. In 2014, at the time this Guide was originally published, five pairs of counties were sharing a County Engineer. This number fluctuates over time as job changes occur and counties re-evaluate their goals.

In most cases where an engineer is shared between counties, a vacancy occurred, the county was unsuccessful in finding a candidate, approached an adjacent County Board of Supervisors and County Engineer, and worked out an agreement to share the County Engineer.

A shared situation involves several things; some of which are:

- Both Boards and the County Engineer must be in agreement and willing to make some compromises. The respective Boards must have a 28E agreement, which is entered into their respective minutes of the meetings.
- The Engineer must have a substantial salary increase to compensate for the additional time and responsibility.
- The Engineer must be organized and communicate well with each office staff, the Boards, and the general public.
- Each office must have a good support staff. This may mean adding and/or promoting present staff.
- Typically, if two Boards are going to hire a shared County Engineer, the candidate should have County Engineering experience and/or a working knowledge of Secondary Road operations.
- In most cases, counties share salary, etc. equally but there may be instances where other arrangements are appropriate.
- The shared County Engineer should be an employee of one county in order to establish one salary and set of benefits (for example, vacation and holiday schedules). The 28E agreement should list how to handle the reimbursement of expenses, and establish a procedure for terminating the arrangement, if it were to become necessary.
- Generally, one county provides a vehicle and pays for expenses, such as meeting registrations, travel reimbursements, mobile phones and other devices, computer, etc, and is reimbursed by the other county for some portion of the vehicle and other expenses.

PROCEDURE WHEN A VACANCY OCCURS

- When a vacancy occurs, the Board should contact the Local Systems Bureau for guidance related to the hiring process, including use of interim engineers and shared engineers.
- The Board should designate one of their members to lead the process. A committee of advisors (such as an HR professional or a neighboring County Engineer) from outside the Board may be established, if desired.
- Advertisements should specify the application process to close within a one-month time period. It should also include a basic job description, the county's website, and a salary range. Disclosing the salary range on the advertisement generally saves time for both the Board and the potential candidates.
- Sample County Engineer position advertisements are shown in Attachment A.
- At a minimum, advertisements should be placed with the ICEA Service Bureau, the Local Systems Bureau's GovDelivery mailing list (email), and the individual county's website. Other places to consider advertising would be:
 - American Public Works Association (APWA)
 - American Society of Civil Engineers (ASCE)
 - National Society of Professional Engineers (NSPE)
 - National Association of County Engineers (NACE)
 - National Association of Counties (NACo)
 - Iowa Engineering Society (IES)
 - Iowa State Association of Counties (ISAC)
 - Job posting websites such as Career Builder, Monster, Indeed, etc
- It is advisable that the Board establish a set of guidelines about the hiring process for themselves, so all Board members are aware of how the hiring process will be executed, such as how many candidates they plan to interview, and what kind of time frame to advertise, interview, etc.
- Applicants should be screened to keep the number of candidates to a manageable amount. Applicants should be invited to interview by email or phone. A concise schedule for interviewing and hiring should be established.
- The Board should consult with the County Attorney to ensure compliance with the Open Meetings law. Iowa Code 21.5.1.i. addresses the Open Meetings law for evaluating professional competencies in hiring. The Board shall indicate to the applicants if the Board desires to be in open session or if the applicants will be permitted to request a closed session, so applicants know what to expect. In order for closed session to be granted, the applicant must ask to go into a closed session.
- Veteran's Preference language can be found in Iowa Code 35C. Iowa Code requires that the application must ask about the applicant's veteran status, set forth in writing the specific grounds upon which the person was hired or not hired, and notify the Veteran if they weren't hired and the specific grounds for refusal. Consult with your County Attorney for further information on Veteran's Preference Law.
- A County may pay travel expenses of interviewees at its discretion.

- After a selection is made, contact all applicants and let them know the position has been filled and thank them for applying and/or interviewing.

Other Opportunities an applicant may be looking for:

- Job possibilities for spouse
- Recreation and cultural activities available in the area
- Family educational opportunities
- History of a good relationship between the Board and County Engineer in that county
- Salary and career advancement possibilities
- A good school community for children

GENERAL DUTIES AND REQUIREMENTS OF A COUNTY ENGINEER

Job Summary

The County Engineer is responsible and accountable for the overall administration, planning, directing, coordinating, and supervising of the Secondary Road Department and the Secondary Road System. This shall include the direction of construction, maintenance, and engineering of all Secondary Roads and related services. This shall be done in a manner designed to achieve the best possible quality of design, services, and materials at the most reasonable cost.

Requirements

The County Engineer must be a licensed civil engineer, according to Iowa Code 309.17, and qualify to be bonded per Iowa Code 309.18. A Professional Land Surveyors License is preferred but not required.

General Job Duties

- Develop and present annual department Budget and County Five Year Program (CFYP) in accordance with the Iowa Code and Iowa DOT regulations. Regularly review expenditures and make recommendations to meet departmental needs.
- Administer engineering services to include surveys, plan preparation, design, materials testing, and contract construction and maintenance in compliance with state and federal specifications.
- Conduct field inspections of contract construction and general inspections of roads and bridges. Provide direction and management of field activities to assure timely completion and optimum level of service to the public.
- Provide short- and long-range planning for construction and maintenance projects by analyzing road deficiencies. Ensure adequate road signing for safety to the traveling public.
- Administer collective bargaining agreement (if applicable) and personnel policies in a fair and consistent manner to ensure compliance and achieve productivity and motivation of employees.
- Maintain a positive public image for the department through proper management and direction of all activities, while ensuring goals and objectives are met.

Essential Job Functions

- Ability to administer programs and supervise work of others.
- Ability to communicate effectively with the Board, landowners, citizens, and staff.
- Ability to maintain accurate records and to prepare reports.
- Ability to meet stressful project deadlines and make necessary changes in priorities.
- Ability to work in hot, cold, wet, dusty, dirty, noisy, fummy conditions.

- Able to work occasional irregular hours – subject to call 24 hours/day.

Desirable Qualities and Skills

- Excellent communication skills; written, verbal, and listening.
- Ability to train, motivate, and direct others
- Ability to establish and maintain effective working relationships with Supervisors, staff, other county employees, and outside entities
- Ability to demonstrate a working knowledge of engineering practices and procedures
- Knowledge of safety standards and skills
- Knowledge of Iowa DOT and Federal regulations regarding construction and maintenance of secondary roads

Sample Job Descriptions are shown in Attachment B.

SALARY AND BENEFITS

Salary

The salary and benefit package is one of the major factors a candidate considers when deciding to accept an offer for a County Engineer position. Boards are sometimes faced with criticism for the “high salary” of the engineer but it may be one of the best investments they can make. An engineer with good management practices will save many times the salary. Also, good relations with the public will relieve the Board of much effort and allow them time to devote to other policy matters.

There is an annual County Engineer salary tabulation available on the ICEA Service Bureau website and from the Iowa DOT’s Local Systems Bureau.

Benefits

Many counties have personnel policies outlining vacation, sick leave, salary increases, etc. that are based on length of service with the county. Generally, those policies were developed for an employee who starts at an entry level with the county and advances in experience and pay grade over time. Many times, that does not fit the experience pattern of a professional engineer who is being considered for the County Engineer position. The individual may have had several years of experience with other counties or organizations and would be reluctant to accept a reduction in vacation time, loss of built-up sick leave, etc.

The Board should consider giving the credit for years of service in the field even though it is not with a particular county.

Many industries and government pay moving and real estate costs when employees are transferred or if a new management employee is hired. The Local Systems Bureau will furnish a copy of the Iowa DOT policy upon request.

It is estimated that approximately 75% of the County Engineers in Iowa have an employment contract. A few sample contracts were developed many years ago by a committee of Engineers and Supervisors. Sample contracts are attached; however, these are just samples and not necessarily recommendations. The final contract a Board and the County Engineer decide on should be reviewed by the County attorney.

Sample County Engineer Contracts can be found in Attachment C.

It is recommended all counties develop a contract with their engineer, and particularly with new hires. A contract reminds the parties to discuss and agree on all matters such as vacation, sick leave, benefits, salary increases, etc. These things should be addressed, and it is best that the results be written down.

SUGGESTED INTERVIEW QUESTIONS

Below are some sample questions that a County Board of Supervisors can pose to engineer candidates when conducting an interview. These are oriented towards letting the person share information about their abilities and temperament. Avoid questions that can be answered “yes” or “no”, as they reveal little. Commentary has been added under each one to clarify its objective or explain why it’s worded in a certain way. Please feel free to add more questions.

1. What attracts you to County Engineering?

Why does this person want to serve as a County Engineer, as opposed to say a DOT engineer, a consultant, a City engineer, or a contractor? Do they have a clear picture of what the job is all about?

2. Why are you looking for a new position?

Find out if an engineer is trying to increase their breadth of experience, leave problems behind, or just wants to move to your area. Look for professional, personal, and financial reasons.

3. What are your strengths and, conversely, where do you still need to improve yourself?

This can reveal whether or not a prospect has seriously examined themselves and their life goals. Most people can tell you what their strengths are. You may need to allow a little extra time for them to honestly state areas where they think they can upgrade themselves. A candidate who can’t find any need to improve themselves isn’t trying.

4. Where do you see yourself in ten years?

Use this to see if they plan on a long term commitment, if they plan to continue their professional development, and ascertain if they are growing or getting by.

5. What makes you a top candidate for this job?

Use this question to find out if the candidate has researched your county’s needs, priorities, and issues. A prospect should have some idea of your situation and be able to discuss how their abilities and experience will fulfill your needs. Do not ask them to state why they are the BEST candidate because that requires that they either overstate abilities or attempt to evaluate your other candidates with insufficient information.

6. What special skills or attributes do you have that would be of benefit to our County?
What values do you think are integral in your role as an engineer?

Everybody is different. Use this question to find out what's special about this person and learn if there are unique skills, experience, or training that would fit the special needs of your County.

7. How would you describe yourself?

Learn the prospect's sense of self and find out if they know themselves well enough to clearly state personality, style, and attitude.

8. How do you handle problems with employees? How will you resolve conflicts?

Ask this question to find out what experience the candidate has in managing employees and dealing with disciplinary matters. Top candidates will be able to classify problems and tell you how they like to deal with them.

9. Have you ever experienced a setback? If so, how did you handle it, and what did you learn from it?

Find out how the individual might react when things don't go their way. Learn how adaptable and effective they can be in an adverse situation.

10. How do you think County Engineering will change in the future?

Use this query to find out if the candidate has sufficient experience in the public works arena to have formed opinions about what to expect. Learn how these expectations influence the person's attitude and approach to handling the job.

11. What do you like best about your present/last position?

12. Describe some emergencies you have had to respond to in your current job experience, if any.

13. Describe the best and the worst working relationship you have experienced with staff under your supervision.

14. Describe a situation in which you used a creative way of accomplishing a goal or project.

15. Have you had experience dealing with collective bargaining units? Tell us briefly the role you have played in the negotiating process.

16. What would your references tell us about you?

Everybody lists references who will provide favorable comments on their ability. Try this question to force the candidate to paraphrase what they believe the references would actually say about them in a hypothetical setting. It's not guaranteed, but it will often get you honest insights about the person's character and proficiency.

17. What action/accomplishments are you proud of in your previous work?

Every professional takes pride in his/her work. The items that they cite when you ask this question will provide insights into their style. It may show how technically inclined a person is, or show a person who focuses on results accomplished by their team of people. It helps show if someone has a more technical background or a more management oriented background.

18. How would you deal with complaints from an irate citizen over problems relating to secondary roads? Or tell us about a situation in which you dealt with John Q. Public concerning a complaint he/she had with services of the secondary road department.

(Boards may require candidates to go through a sample exercise.)

19. Define the method you use in interacting with the Board of Supervisors and/or your current management.

20. How would you plan to start up, if selected for the job?

Use this query to find out if the candidate is "just looking" or is seriously interested in your particular position. A motivated candidate may have already toured your facilities, visited with key staff, and researched key issues. Give prospects a chance to let you know if they've made such an effort and learn how they would intend to become effective once on the job.

21. Do you have any questions you would like to ask us?

A good prospect will have done enough research to have several questions about your operations, policies, and key issues – as well as the usual job benefits, hours, office conditions, etc.

Note: Audio record the interviews with all candidates, even those in closed session, according to Iowa Code 21.5(4). This should be done with the knowledge of the candidate being interviewed.

HELPFUL IOWA CODE SECTIONS AND LEGAL REFERENCES

- [Iowa Code 309.17](#): Engineer – term
 - “The board of supervisors shall employ one or more licensed civil engineers who shall be known as county engineers. The board shall fix their term of employment which shall not exceed three years, but the tenure of office may be terminated at any time by the board.”
- [Iowa Code 309.21](#): Supervision of construction and maintenance work
 - “The board of supervisors shall employ one or more licensed civil engineers who shall be known as county engineers. The board shall fix their term of employment which shall not exceed three years, but the tenure of office may be terminated at any time by the board.”
- [Iowa Code 309.67](#): Duties of County Board of Supervisors and County Engineer
 - “The county board of supervisors is charged with the duty of establishing policies and providing adequate funds to properly maintain the secondary road system. The county engineer, pursuant to section 309.21 and board policy, shall adopt such methods and recommend such personnel and equipment necessary to maintain continuously, in the best condition practicable, the entire mileage of said system.”
- [Iowa Code 310.4](#): Use of fund [Farm-to-Market]
 - Said farm-to-market road fund is hereby appropriated for and shall be used in the establishment, construction, reconstruction or improvement of the farm-to-market road system, including the drainage, grading, surfacing, resurfacing, construction of bridges and culverts, the elimination, protection, or improvement of railroad crossings, the acquiring of additional right-of-way and all other expenses incurred in the construction, reconstruction or improvement of said farm-to-market road system under this chapter.
- [Iowa Code 310.9](#): Projects authorized by department
 - “Before authorizing for letting any farm-to-market road project, the department shall satisfy itself that the county engineer’s office in that county is organized, equipped, and financed to discharge satisfactorily the duties required in this chapter [Farm-to-Market Roads].”
- [Attorney General Opinion \(February 5, 1948\): Board of Supervisors – road maintenance – supervision by engineer](#)