PROFESSIONAL ENGINEERING



Broad Occupational Category - 55

DUTIES AND RESPONSIBILITIES

- *Review and approve engineering and architectural plans, drawings, and specifications.*
- *Serve as subject matter expert for engineering or architectural disciplines.*
- *Ensure compliance of construction with approved plans, specifications, and standards.*
- *Represent the agency at meetings, hearings, and public forums.*
- *Provide guidance to junior staff and engineers-in-training.*
- *Develop preliminary and final project designs, plans, and technical documents.*
- *Interpret and implement state and federal laws, codes, and regulations.*
- *Provide technical guidance and training to staff and contractors.*
- *Maintain records, reports, and documentation of project progress.*
- *Review and interpret new codes, regulations, and industry best practices.*
- *Identify, assess, and mitigate risks in design and construction processes.*
- *Prepare cost estimates, bid quantities, and project schedules.*
- *Conduct feasibility studies, research industry standards, propose design alternatives, and develop or revise policies, procedures and design standards.*
- *Evaluate constructability, completeness, and compliance of project plans.*
- *Coordinate multi-disciplinary teams, divisions, or agencies for project execution.*

NEBRASKA

Good Life. Great Service.

COMPETENCIES

- **Problem Solving** - Uses rigorous logic and methods to solve difficult problems with effective solutions; probes all fruitful sources for answers; can see hidden problems; is excellent at honest analysis; looks beyond the obvious and doesn't stop at the first answers.
- **Customer Focus** - Is dedicated to meeting the expectations and requirements of internal and external customers; gets first-hand customer information and uses it for improvements in products and services; acts with customers in mind; establishes and maintains effective relationships with customers and gains their trust and respect.
- **Technical Learning** - Picks up on technical things quickly; can learn new skills and knowledge; is good at learning new industry, company, product, or technical knowledge; does well in technical courses and seminars.
- **Organizing** - Can marshal resources (people, funding, material, support) to get things done; can orchestrate multiple activities at once to accomplish a goal; uses resources effectively and efficiently arranges information and files in a useful manner.
- **Planning** - Accurately scopes out length and difficulty of tasks and projects; sets objectives and goals; breaks down work into the process steps; develops schedules and task/people assignments; anticipates and adjusts for problems and roadblocks; measures performance against goals; evaluates results.
- **Action Oriented** - Enjoys working hard; is action oriented and full of energy for the things he/she sees as challenging; not fearful of acting with a minimum of planning; seizes more opportunities than others.
- **Timely Decision Making** - Makes decisions in a timely manner, sometimes with incomplete information and under tight deadlines and pressure; able to make a quick decision.
- **Decision Quality** - Makes good decisions (without considering how much time it takes) based upon a mixture of analysis, wisdom, experience, and judgment; most of his/her solutions and suggestions turn out to be correct and accurate when judged over time; sought out by others for advice and solutions.

- **Functional/Technical Skills** - Has the functional and technical knowledge and skills to do the job at a high level of accomplishment.
- **Perseverance** - Pursues everything with energy, drive, and a need to finish; seldom gives up before finishing, especially in the face of resistance or setbacks.
- **Time Management** - Uses his/her time effectively and efficiently; values time; concentrates his/her efforts on the more important priorities; gets more done in less time than others; can attend to a broader range of activities.
- **Written Communications** - Is able to write clearly and succinctly in a variety of communication settings and styles; can get messages across that have the desired effect.
- **Directing Others** - Is good at establishing clear directions; sets stretching objectives; distributes the workload appropriately; lays out work in a well-planned and organized manner; maintains two-way dialogue with others on work and results; brings out the best in people; is a clear communicator.
- **Managing and Measuring Work** - Clearly assigns responsibility for tasks and decisions; sets clear objectives and measures; monitors process, progress, and results; designs feedback loops into work.
- **Organizational Agility** - Knowledgeable about how organizations work; knows how to get things done both through formal channels and the informal network; understands the origin and reasoning behind key policies, practices, and procedures; understands the cultures of organizations.

SMART Goal Prompting Questions

Review and approve engineering and architectural plans, drawings, and specifications

- What actions could you take to improve the accuracy, consistency, or efficiency of reviewing and approving engineering and architectural plans?
- How will you measure success, such as fewer review comments, reduced approval times, or fewer revisions during construction?
- What review checklists, quality-control processes, or technical resources could strengthen plan reviews?
- How does thorough plan review support project quality, safety, compliance, and cost control?
- By what date or project review cycle will you aim to improve plan review and approval practices?

Serve as subject matter expert for engineering or architectural disciplines

- What steps could you take to strengthen your technical expertise and effectiveness as a subject matter resource?
- How will you measure success, such as faster resolution of technical questions, improved staff support, or increased stakeholder confidence?
- What training, professional resources, research, or knowledge-sharing opportunities could strengthen your expertise?
- How does effective subject matter expertise support sound engineering decisions and successful project delivery?
- By what date or professional development cycle will you aim to strengthen your subject matter expertise?

Ensure compliance of construction with approved plans, specifications, and standards

- What strategies could you use to improve monitoring of construction for compliance with approved plans and specifications?
- How will you measure success, such as fewer construction deficiencies, earlier identification of deviations, or reduced corrective work?
- What inspection procedures, documentation tools, or quality-control measures could strengthen compliance monitoring?
- How does construction compliance support project quality, safety, durability, and responsible use of public resources?
- By what date or project milestone will you aim to improve construction compliance practices?

Represent the agency at meetings, hearings, and public forums

- What actions could you take to improve your effectiveness when representing the agency in meetings, hearings, and public forums?
- How will you measure success, such as clearer communication, improved stakeholder understanding, or more effective resolution of questions and concerns?
- What preparation methods, briefing materials, or presentation techniques could strengthen your agency representation?
- How does effective representation support public trust and informed decision-making?
- By what date or meeting cycle will you aim to improve your agency representation practices?

Provide guidance to junior staff and engineers-in-training

- What steps could you take to strengthen mentoring, coaching, and technical guidance for developing engineers?
- How will you measure success, such as improved competency, greater independence, or successful completion of assigned technical work?
- What mentoring plans, job aids, project assignments, or feedback methods could support staff development?
- How does effective mentoring contribute to technical quality, professional growth, and workforce succession?
- By what date or development cycle will you aim to improve mentoring practices?

Develop preliminary and final project designs, plans, and technical documents

- What actions could you take to improve the quality, efficiency, or completeness of project designs and technical documents?
- How will you measure success, such as fewer design revisions, improved review outcomes, or reduced design-related issues during construction?
- What design tools, quality-control processes, standards, or peer reviews could strengthen your work?
- How do high-quality designs and technical documents support successful project delivery?
- By what date or project phase will you aim to improve design and documentation practices?

Interpret and implement state and federal laws, codes, and regulations

- What strategies could you use to strengthen your understanding and application of engineering-related laws, codes, and regulations?

- How will you measure success, such as fewer compliance issues, improved review accuracy, or more consistent application of requirements?
- What training, regulatory resources, or review procedures could strengthen regulatory interpretation?
- How does accurate application of legal and regulatory requirements support public safety and project compliance?
- By what date or regulatory review cycle will you aim to improve your knowledge and application of requirements?

Provide technical guidance and training to staff and contractors

- What actions could you take to improve the technical guidance and training provided to staff and contractors?
- How will you measure success, such as fewer technical errors, improved competency, or reduced requests for clarification?
- What training materials, technical demonstrations, standards, or coaching methods could strengthen technical knowledge?
- How does effective technical guidance improve project quality and consistency?
- By what date or training cycle will you aim to improve technical training and guidance practices?

Maintain records, reports, and documentation of project progress

- What steps could you take to improve the accuracy, organization, and timeliness of project records and progress documentation?
- How will you measure success, such as fewer documentation errors, improved accessibility, or more timely reporting?
- What tracking systems, templates, or documentation procedures could strengthen project records?
- How does accurate project documentation support accountability, communication, and project control?
- By what date or reporting cycle will you aim to improve project documentation practices?

Review and interpret new codes, regulations, and industry best practices

- What actions could you take to stay current with changes in codes, regulations, and engineering best practices?
- How will you measure success, such as timely implementation of changes, fewer compliance concerns, or improved technical practices?
- What professional organizations, training, technical publications, or regulatory resources could support continuous learning?

- How does staying current with industry requirements support sound engineering decisions?
- By what date or professional development cycle will you aim to improve your process for monitoring and applying new requirements?

Identify, assess, and mitigate risks in design and construction processes

- What strategies could you use to identify and address engineering and construction risks earlier in the project lifecycle?
- How will you measure success, such as fewer unexpected issues, reduced change orders, or faster resolution of identified risks?
- What risk assessments, design reviews, checklists, or lessons-learned processes could strengthen risk management?
- How does proactive risk management support project safety, cost control, and successful delivery?
- By what date or project milestone will you aim to improve risk identification and mitigation practices?

Prepare cost estimates, bid quantities, and project schedules

- What steps could you take to improve the accuracy of cost estimates, bid quantities, and project schedules?
- How will you measure success, such as reduced estimate variances, fewer quantity corrections, or improved schedule accuracy?
- What historical project data, estimating tools, review procedures, or scheduling resources could strengthen your work?
- How do accurate estimates and schedules support responsible budgeting and successful project delivery?
- By what date or project phase will you aim to improve estimating and scheduling practices?

Conduct feasibility studies, research industry standards, propose design alternatives, and develop or revise policies, procedures, and design standards

- What actions could you take to improve the quality and usefulness of feasibility studies, technical research, or proposed design alternatives?
- How will you measure success, such as better-informed decisions, improved project outcomes, or adoption of recommended standards or procedures?
- What research methods, benchmarking, stakeholder input, or technical analysis could strengthen your evaluations?
- How does effective feasibility analysis and standards development support innovation, consistency, and sound engineering decisions?
- By what date or project/policy cycle will you aim to improve these analytical and standards-development practices?

Evaluate constructability, completeness, and compliance of project plans

- What strategies could you use to identify constructability concerns, missing information, or compliance issues before construction begins?
- How will you measure success, such as fewer construction questions, reduced change orders, or fewer design revisions?
- What interdisciplinary reviews, constructability checklists, or quality-control procedures could strengthen plan evaluations?
- How does thorough plan evaluation reduce project risk, delays, and unnecessary costs?
- By what date or project review cycle will you aim to improve constructability and compliance reviews?

Coordinate multi-disciplinary teams, divisions, or agencies for project execution

- What actions could you take to improve coordination among engineers, architects, contractors, agencies, and other project stakeholders?
- How will you measure success, such as fewer coordination issues, improved milestone completion, or faster resolution of project decisions?
- What communication plans, coordination meetings, responsibility matrices, or project-management tools could strengthen collaboration?
- How does effective multidisciplinary coordination contribute to successful project execution?
- By what date or project phase will you aim to improve multidisciplinary coordination practices?