STATE OF NEVADA
Department of Administration
Division of Human Resource Management

CLASS SPECIFICATION

TITLE	GRADE	EEO-4	CODE
HIGHWAY PROJECT MANAGER, RPE	**44***	**B**	**6.101**

Under administrative direction, Highway Project Managers perform professional engineering work in coordinating, planning, directing and managing activities as a highway project engineer for the Nevada Department of Transportation (NDOT). Work is distinguished from lower level highway construction project managers by the level of complexity of the projects assigned. Examples of projects managed at this level include the U.S. 395 Carson City Bypass, the U.S. 93 Hoover Dam Bypass, and the U.S. 93 Boulder City Bypass projects. This includes responsibility for the scope, budget, and timely completion of multi-year projects.

Engineering functions at this level require analysis involving the application of advanced principles and abstract concepts in the development of unique solutions to difficult problems that impact the administration and management of major, broad organizational services and long and short-range goals. Duties require decisions that have direct and significant impact on project progress and resources. Communication with executives, officials and regulatory representatives is also required for the purpose of negotiating solutions to major issues involving the influence of policy and procedure changes. Work is performed independently within the framework of department policies and all applicable laws, regulations and statutory requirements; project management includes determining work priorities, standards, techniques and guidelines; when standards and techniques are not adequate or applicable, judgment and ingenuity must be exercised.

Incumbents coordinate activities between consultants, contractors, various functional divisions within NDOT, other State and federal agencies, and local transportation officials, and resolve extensive environmental, right-of-way, hydraulic, safety, and construction materials issues associated with the largest highway projects as well as intensive coordination and communication with federal officials to ensure appropriate use of federal funds.

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REPRESENTATIVE DUTIES

Prepare the project scope of work and approve changes when necessary including the project description and all design requirements; meet with federal and local officials and participate in public hearings to ensure the project scope meets all necessary requirements; ensure the project is properly programmed into the State Transportation Improvement Program (STIP); continually identify major right-of-way and design options and bring them to senior management for timely decisions; prepare and submit necessary design exceptions to the Federal Highway Administration.

Consult with various NDOT divisions to develop a realistic project schedule; consider schedules for each aspect of the project including initial studies, environmental studies, and right-of-way acquisition; ensure the project schedule is maintained and problems are resolved expeditiously; conduct periodic meetings involving various participants to review project status and identify issues to avoid project delays, and alert senior management to issues which may cause unanticipated delays; consider the availability of agency construction inspectors and need for consultant inspection.

Develop and periodically review the project budget and, if necessary, justify and make changes as appropriate; work with the department's program development and financial management sections to ensure funding is available in the appropriate category for the applicable fiscal year and that no funding is lost; review past projects to develop accurate cost estimating factors; review all major design elements in order to

REPRESENTATIVE DUTIES (cont'd)

identify more cost effective options; ensure the "Engineer's Estimate" is properly prepared and that all other cost elements are accurately estimated and included within the project budget; work with the Legal Division to negotiate and execute funding and other agreements with other agencies and private developers; and prepare discretionary funding requests for submission to the federal government.

Direct and manage projects during the pre-construction phase by coordinating the efforts of all functional engineering divisions and consultants; ensure all environmental, hydraulic, and right-of-way issues are addressed; determine the need for and supervise the use of outside consultants by preparing requests for proposal, conducting the consultant selection process, negotiating consultant contracts and fees, setting delivery schedules, approving payments, and conducting regular quality reviews of completed work; conduct regular project meetings and work with the many functional engineering divisions within NDOT to prepare construction plans and specifications; ensure continual coordination with all involved federal, State and local agencies including the preparation of submittals; within area of engineering expertise, perform plan reviews and make suggestions for design improvements including providing sketches, details and specifications; work with the Materials Division to identify material requirements and sources; work with the Right-of-Way and Legal Divisions to ensure that all right-of-way requirements are met in a timely manner; arrange for final plan checks to ensure design requirements are met; and resolve problems to ensure that projects stay within scope, under budget, and on schedule.

Attend pre-bid conferences, ensuring amendments to bid documents are issued, and assist in evaluating the bids; conduct periodic project inspections; coordinate with the resident engineer to ensure the project is built in accordance with the construction plan; ensure change orders are formulated and processed in a timely manner; assist in negotiating contract change orders; closely monitor traffic control to reduce delays; work to ensure affected residents, businesses and the general public are kept apprised of project impacts; at the end of a project, evaluate successes and failures and make recommendations for improvements in the development and design of future projects.

Perform related duties as assigned.

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MINIMUM QUALIFICATIONS

INFORMATIONAL NOTE:

* Any person registered as a Professional Engineer in another state must become registered as a Professional Engineer in Nevada within six months following the date of appointment and as a condition of continued employment.

EDUCATION AND EXPERIENCE: Current licensure as a Registered Professional Engineer and demonstrated supervisory or responsible project charge experience in designing, constructing or coordinating major highway or transportation projects. *(See Informational Note)*

ENTRY KNOWLEDGE, SKILLS AND ABILITIES (required at time of application):
Working knowledge of: project management techniques including development of the project scope, budget and schedule; application of engineering principles and data, wherein the public welfare or the safeguarding of life, health or property is concerned or involved; engineering principles and practices; principles of organization and management in an engineering environment; engineering nomenclature and construction methods; basic economic methods, including time-value-of-money concepts and life-cycle costs; basic statistical methods such as mean, standard deviation, trend analysis and curve fitting; calculus and differential equations; environmental, right-of-way, hydraulic, safety, and construction materials issues associated with major highway construction projects; federal, State and local government agencies involved in highway construction projects.

MINIMUM QUALIFICATIONS (cont'd)

ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES (cont'd)
Skilled in: written and oral communication required to prepare written correspondence and reports and to present ideas effectively in a professional manner. **Ability to:** provide independent control and direction, by the use of initiative, skill and independent judgment, of the investigation or design of professional engineering work; prepare and administer professional services agreements; organize material and information systematically to optimize efficiency; speak on a one-to-one basis to obtain information, explain policies, or to persuade others to adopt a specific opinion or action; motivate others and stimulate people to effective action; negotiate, exchange ideas, information and opinions with others to formulate policies and or arrive jointly at decisions, conclusions or solutions; analyze information, problems, situations, practices and procedures to define a problem or objective, identify relevant concerns, formulate logical conclusions, and recognize alternatives and their implications; work independently and follow through on assignments; formulate engineering sketches and details suitable for drafting; modify and/or adapt engineering designs, procedures or methods to fit a given set of circumstances; read and understand technical engineering documents; mediate between contending parties or groups; read and interpret construction drawings and specifications to prepare contract specifications.

FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES (typically acquired on the job):
Detailed knowledge of: current engineering principles and practices related to highway and bridge design and construction; project management techniques as related to the scope, budget and schedule; design and pre-construction phases of a major project. **Working knowledge of:** budget development and control; construction contracts dealing with technical subjects including the interpretation of complicated plans and specifications; negotiation and administration of contracts; design and construction of major highway projects; agency policies and procedures; federal and State contracting and budgeting processes. **Ability to:** plan, organize, coordinate and manage all phases of major highway construction projects including developing the scope of work, project schedules and budgets, and coordinating the pre-construction engineering and construction activities; coordinate major activities across divisional and functional areas within NDOT; monitor the work of consultants and contractors to ensure project completion within the allotted budget and time frames; arrange for final plan checks and make necessary changes; oversee project construction and process or approve change orders as required; prepare and submit documentation and reports to all applicable agencies and entities; work cooperatively with professional staff and management within the department and with external organizations involved in assigned projects; develop and manage budgets for multi-million dollar highway construction projects; operate personal computer to perform complex engineering and mathematical calculations and present information in a clear and concise format; coordinate activities dealing with starting, scheduling, and constructing projects which involve consultants, contractors and other agencies and mediate differences; analyze complex technical data and formulate logical and objective conclusions; prioritize assignments to complete work with competing requirements and pressures of deadlines.

This class specification is used for classification, recruitment and examination purposes. It is not to be considered a substitute for work performance standards for positions assigned to this class.

6.101

ESTABLISHED:	2/26/76
REVISED:	7/6/90PC
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