

MEMORANDUM

State of Alaska
Department of Administration
Division of Personnel

To: Nicki Neal
Director

Date: October 21, 2008

Thru: Cindy Gouveia *CG*
Classification Study Manager

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Subject: Land Surveyor Study

Preamble:

In 2006, the Department of Natural Resources (DNR) requested a study of the Land Surveyor and Land Survey Assistant job class series. DNR requested that the Land Surveyor study

- consider revising the Land Surveyor series to include a managerial level;
- consider revising the Land Survey Assistant series to create an advanced level in order to establish a career ladder for non-registered employees;
- update the class specifications for both series;
- review appropriate job class family placement; and
- conduct an internal salary alignment.

Study Scope:

The study included the review of 24 (both non-licensed and licensed) positions allocated to the job classes of Land Survey Assistant I-II and Land Surveyor I-II. Updated position descriptions for these positions were requested from the Department of Transportation and Public Facilities and from the Department of Natural Resources. This memo addresses the analysis of and revision to the Land Survey Assistant and Land Surveyor job class series.

Study Contacts:

John Bennett, Right of Way Agent VI with the Department of Transportation and Public Facilities, and Gerald Jennings, Land Surveyor II with the Department of Natural Resources, served as the Occupational Consultants.

History of Job Classes:

Cadastral Survey Assistant I-III, Cadastral Surveyor I-III, and Chief Cadastral Surveyor were established June 16, 1978.

A class study, completed January 1, 1994, resulted in a complete revision. The Cadastral Survey Assistant I and II were changed to Land Survey Assistant I and II, respectively; Cadastral Survey Assistant III was abolished; Cadastral Surveyor I and II were changed to Land Surveyor I and II, respectively; Cadastral Surveyor III was abolished; and Chief Cadastral Surveyor was abolished.

Class Analysis:

The state's classification plan provides for the grouping of positions into job classes when they are sufficiently similar with respect to duties and responsibilities, degree of supervision exercised and received, and entrance requirements so that: 1) the same title can be used to clearly identify each position; 2) the same minimum qualifications for initial appointment can be established for all positions; 3) the same rate of basic pay can be fairly applied to all positions; and 4) employees in a particular class are considered an appropriate group for purposes of layoff and recall. Job classes should be constructed as broadly as is feasible as long as the tests of similarity are met.

As defined in AS 08.48.431, land surveying work involves the application of special knowledge of the principles of mathematics, the related physical and applied sciences, and the relevant requirements of law for adequate evidence of the act of measuring and locating land, geodetic and cadastral surveys for the location and monumentation of property boundaries, for the platting and planning of land and subdivisions of land, including the topography, alignment, and grades for streets, and for the preparation and perpetuation of maps, record plats, field note records, and property descriptions that represent these surveys.

State of Alaska land survey activities are found in two departments, the Department of Transportation and Public Facilities and the Department of Natural Resources. Previously, there were four job classes performing land surveying work—two classes at the non-licensed professional level (entry level and journey level) and two classes requiring licensure as a Professional Land Surveyor (journey-level and supervisory/management). This structure was implemented after an economic downturn had reduced the number of positions performing land survey work within the State of Alaska. Land survey responsibilities have increased under subsequent administrations, and the programs for which the DNR land survey section is responsible have acquired managerial oversight. Examination of positions and their current duties found a level of non-licensed, professional-level work and two managerial levels for which job classes did not exist. To address the needed structure, we are establishing a new framework that includes seven job classes—one class at the technical level, two classes at the non-licensed professional level, and four licensed classes requiring registration as a Professional Land Surveyor. The four licensed classes requiring registration are further divided into two separate job class series: the Land Surveyor Series and the Land Survey Manager series.

At the technical level

The Land Survey Technician job class was created primarily as a recruitment tool for DNR. Recruitment difficulties and upcoming retirements, as well as demographic changes in society, suggest that acquiring qualified land survey workers in the future necessitate a "grow our own" philosophy. The technical-level job class was created so that potential employees with only a minimum level of appropriate education and/or experience could begin a career with the State of Alaska. After several years of experience performing technical-level work assisting Land Survey Specialists, employees could acquire the skills necessary to perform non-licensed professional-level duties.

At the non-registered professional level

The Land Survey Specialist job class series has two levels: journey and advanced. Most land survey work not requiring a license as a Professional Land Surveyor is performed by Land

Survey Specialists I. The most difficult and complex land survey work not requiring licensure as a Professional Land Surveyor is performed by Land Survey Specialists II. As some Land Survey Specialists never get a license, yet are able to handle substantially more complex duties, adding an advanced non-licensed professional-level job class allows for the possibility of career progression without having to become a licensed Professional Land Surveyor.

At the registered Professional Land Surveyor level

Land Surveyor I is the journey-level licensed Professional Land Surveyor job class. Positions in this class perform the bulk of land survey work requiring Board certification. Land Surveyors II function as either an expert in specific program areas (i.e., a recognized expert on specific program issues) or supervise subordinate Land Surveyors I. DOT/PF requested that the LS II supervisory option not be limited to a class-controlling requirement of supervising subordinate Land Surveyors I but be expanded to include Engineering Assistants performing land survey work. This request was examined and denied, since the purpose of Land Surveyors II, under the supervisory option, is to supervise licensed Professional Land Surveyor employees performing class-controlling land survey work.

At the registered Professional Land Surveyor Managerial level

Land Survey Managers I supervise subordinate Land Surveyors II and either manage a major component of DNR's Survey Section or manage all survey work for a DOT region; Land Survey Manager II is the Chief of Surveys for a department. As currently organized, only DNR has a position functioning as a Chief of Surveys.

Class Title:

A class title should be the best descriptive title for the work. It is intended to concisely and accurately convey the kind and level of work performed and should be brief, easily recognized, gender neutral, and understood by potential applicants.

Land Survey Technician is adopted as the title of positions that perform paraprofessional land survey work under the direction of Land Survey Specialists or licensed Land Surveyors.

Non-licensed professional positions were previously titled Land Survey Assistant I and II. During the study, suggestions were made for retitling from "assistant" to "specialist" in order to clarify the distinction between work that is primarily assistive in nature from the non-licensed, professional-level work performed by specialists in a specific field. To reflect this level of work, we have adopted the title of Land Survey Specialist, with appropriate level indicators.

The term "Land Surveyor" is statutorily restricted to people with a Professional Land Surveyor license in accordance with AS 08.48.341. Appropriate level indicators have been provided.

The managerial classes have been titled Land Survey Managers to emphasize the general programmatic nature of the managerial duties assigned to the positions, with appropriate level indicators.

Minimum Qualifications:

The minimum qualifications established for a job class must relate to the knowledge, skills, and abilities needed to perform the work and must not create an artificial barrier to employment of

individuals in protected classes. Required training should be limited to the basic formal training that customarily prepares individuals for work in the field. Experience requirements are intended to ensure new employees can successfully perform the work after a period of orientation or familiarization. Required experience should be directly related to the actual duties of positions in the class and should not be equivalent to the work to be performed.

Minimum qualifications based on education, experience, or a combination of the two is required to provide a healthy pool of candidates who can be reasonably expected to succeed as Land Survey Technicians. The minimum qualifications were selected so that candidates can enter the job and be expected to successfully perform the work following a training period. The substitutions for the Land Survey Technician and Land Survey Specialists I and II increase the probability that reasonable applicant pools consisting of qualified candidates will be available during recruitment.

There are two paths into the Land Survey profession: education and experience. The minimum qualification requirements for the Land Survey Technician reflect this dichotomy. Qualified applicants must have either an appropriate educational or work-experience background, or a combination of the two.

While Land Survey Specialists perform professional-level land survey work, since they work under the direction of a registered land surveyor, professional registration is not required. When setting minimum qualifications for the Land Survey Specialist job class series, educational requirements were used as the basic minimum requirement. Specific experience performing professional-level land survey work was also required for the Land Survey Specialist II. The experience substitution allows management to consider applicants who have related paraprofessional and/or technical work experience and could be reasonably expected to advance to performing professional-level work after a period of training and familiarization.

Legal licensure as a Professional Land Surveyor by the State Board of Registration for Architects, Engineers, and Land Surveyors is the basic minimum requirement and starting point for incumbents in the Land Surveyor and Land Survey manager job class series. The minimum qualifications for the Land Surveyor II, Land Survey Manager I, and Land Survey Manager II also require sufficient experience as a licensed Professional Land Surveyor.

Class Code:

A Class Code is assigned based on the placement of the job class in the classification schematic of Occupational Groups and Job Families. Occupational Groups are made up of related Job Families and encompass relatively broad occupations, professions, or activities. Job Families are groups of job classes and class series that are related as to the nature of the work performed and typically have similar initial preparation for employment and career progression.

The Land Survey Specialist I (formerly Land Survey Assistant II), Land Surveyor I, and Land Surveyor II are currently assigned to the Land Surveying job family PK07. This job family includes classes of positions that advise on, administer, supervise, or perform professional, paraprofessional, or field work related to measuring and locating of land or structures on the earth's surface. The Land Survey Technician, Land Survey Specialist II, Land Survey Manager I, and Land Survey Manager II are appropriately placed in the PK07 Land Surveying job family.

Land Survey Technician is assigned PK0707.
Land Survey Specialist I is assigned PK0708.
Land Survey Specialist II is assigned PK0709.
Land Surveyor I is assigned PK0711.
Land Surveyor II is assigned PK0712.
Land Survey Manager I is assigned PK0714.
Land Survey Manager II is assigned PK0715.

AKPAY Code:

AKPAY Codes are assigned to job classes for use in legacy computer systems, which cannot use the six-digit Class Codes.

The Land Survey Technician is assigned AKPAY Code K0060.
Land Survey Specialist I remains AKPAY Code P8833.
Land Survey Specialist II is assigned AKPAY Code K0061.
Land Surveyor I remains AKPAY Code P8835.
Land Surveyor II remains AKPAY Code P8836.
Land Survey Manager I is assigned AKPAY Code K0062.
Land Survey Manager II is assigned AKPAY Code K0063.

Fair Labor Standards Act

The positions in this study are covered by the minimum wage and maximum hour provisions of the Fair Labor Standards Act of 1938, as Amended (FLSA). While exemption from the provisions of the Act are determined based on the specific circumstances of an individual employee on a work-week basis, there are general aspects of the classes and their influence on the exemptions for employees in bona fide executive, professional, or administrative positions that can be addressed in general.

Land Survey Technician does not meet the criteria for exemption under the Fair Labor Standards Act.

Positions allocated to the job classes of Land Survey Specialist I and II, Land Surveyor I and II, and Land Survey Manager I and II are considered to meet the criteria of Professional exemption, and are therefore not overtime eligible. The employees perform work requiring advanced knowledge in a field of science or learning that is customarily acquired by a prolonged course of specialized intellectual instruction. Land Surveyors II, under option one, Land Survey Managers I, and Land Survey Managers II, when supervising two or more full-time equivalent positions, will typically meet the Executive exemption as well.

Salary Analysis:

The salary range of a job class is determined based on internal consistency within the State's pay plans, in accordance with merit principles, with the goal of providing fair and reasonable compensation for services rendered and maintaining the principle of like pay for like work. In evaluating internal consistency, the difficulty, responsibility, knowledge, skills, and other characteristics of a job are compared with job classes of a similar nature, kind, and level in the same occupational group and job family or related job families.

While job classes currently being paid under a market-based pay range increase have been included in the internal comparisons, only the base range—and not market-based pay increases—is used in the comparison as it would be inappropriate to include market-based pay increases being paid under special circumstances in determining fair and equitable range determinations. To ensure the classes were properly aligned, and since the PK07 Job Family consists only of those job classes in the study or job classes not appropriate for comparison because of a different pay plan, comparison of the job classes was made with classes in the broader but related Physical Sciences and Engineering occupational group (PK). In addition, greater salary comparison weight has been given to the (PK03) Engineering, Unlicensed and (PK04) Engineering, Licensed job families because of similar work characteristics and because of the historical connection between land survey positions and engineering positions in the State of Alaska.

The classes in the Physical Sciences and Engineering occupational group include:

Job Class	13	14	15	16	17	18	19	20	21	22	23	24	25	26
Hydrologist I				16										
Hydrologist II						18								
Hydrologist III								20						
Chemist I		14												
Chemist II				16										
Chemist III						18								
Chemist IV								20						
Chemist V										22				
Geologist I			15											
Geologist II					17									
Geologist III							19							
Geologist IV									21					
Geologist V										22				
Geologist VI											23			
Geological Scientist I										22				
Geological Scientist II												24		
Engineering Geologist I				16										
Engineering Geologist II						18								
Engineering Geologist III								20						
Regional Engineering Geologist										22				
Chief Engineering Geologist												24		
Environmental Program Technician	13													
Environmental Program Specialist I		14												
Environmental Program Specialist II				16										
Environmental Program Specialist III						18								
Environmental Program Specialist IV								20						
Environmental Program Manager I									21					
Environmental Program Manager II										22				

Environmental Program Manager III										23		
Environmental Impact Analyst I		15										
Environmental Impact Analyst II			17									
Environmental Impact Analyst III				19								
Environmental Impact Analysis Manager I							21					
Environmental Impact Analysis Manager II								22				
Engineering Assistant I		16										
Engineering Assistant II			18									
Engineering Assistant III						20						
Engineering Associate						20						
Mining Engineer Associate			18									
Environmental Engineering Assistant I		16										
Environmental Engineering Assistant II			18									
Environmental Engineering Associate I						20						
Environmental Engineering Associate II								22				
Village Safe Water Engineering Assistant		16										
Village Safe Water Engineering Associate						20						
Communications Engineering Associate I					19							
Communications Engineering Associate II								22				
Utility Engineering Analyst I	14											
Utility Engineering Analyst II			17									
Utility Engineering Analyst III				19								
Utility Engineering Analyst IV						21						
Utility Engineering Analyst V								23				
Engineer/Architect I							21					
Engineer/Architect II								22				
Engineer/Architect III									24			
Engineer/Architect IV										25		
Engineer/Architect V											26	
Environmental Engineer I						21						
Environmental Engineer II							22					
Village Safe Water Engineer I						21						
Village Safe Water Engineer II							22					
Village Safe Water Engineer III								23				
Communications Engineer I							22					
Communications Engineer II								23				

Land Survey Specialist I, as a journey unlicensed professional-level class, performs a scope and variety of duties with characteristics similar to Mining Engineering Associate (18), Engineering Geologist II (18), Environmental Engineering Assistant II (18), and Engineering Assistant II (18). The scope and difficulty of programmatic duties are greater than the characteristics of Cartographer IV (17), Architectural Assistant II (17), Utility Engineering Analyst II (17), and Environmental Impact Analyst II (17). The responsibility, knowledge, and difficulty are not as great as what characterizes the Geologist III (19), Architectural Assistant III (19), Utility Engineering Analyst III, and Environmental Impact Analyst III (19). The similarities of the Land Survey Specialist I with other professional classes at range 18 indicate the class is appropriately assigned range 18.

Land Survey Specialist II, as an advanced unlicensed professional-level class, performs a scope and variety of duties with characteristics similar to Engineering Associate (20), Engineering Assistant III (20), Engineering Geologist III (20), Environmental Engineering Associate I (20), and Village Safe Water Engineering Associate (20). The scope and difficulty of programmatic duties are greater than the characteristics of Geologist III (19), Architectural Assistant III (19), Utility Engineering Analyst III, and Environmental Impact Analyst III (19). The responsibility, knowledge, and difficulty are not as great as what characterizes the Engineer/Architect I (21), Environmental Engineer I (21), Village Safe Water Engineer I (21), and Utility Engineer Analyst IV (21). The similarities of the Land Survey Specialist II with other professional classes at range 20 indicate the class is appropriately assigned range 20.

The Land Surveyor I, as a licensed journey professional-level class, performs a scope and variety of duties with characteristics similar to the Engineer/Architect I (21), Environmental Engineer I (21), and Village Safe Water Engineer I (21). The scope and difficulty of programmatic duties are similar to the characteristics of the Utility Engineering Analyst IV (21), Engineer/Architect I (21), Environmental Engineer I (21), and Village Safe Water Engineer I (21). The responsibility and required knowledge is greater than the characteristics of the Engineering Assistant III (20), Engineering Associate (20), Environmental Engineering Associate I (20), and Village Safe Water Engineering Associate (20). The responsibility, knowledge, and difficulty is not as great as what characterizes the Engineer/Architect II (22), Environmental Engineering Associate II (22), Environmental Engineer II (22), and Village Safe Water Engineer II (22). The substantial similarities of the Land Surveyor I with other professional classes at range 21 indicate the class is appropriately assigned range 21. Additionally, looking at other job families from the occupational group corroborates alignment at range 21 for this level of scope and responsibility.

The Land Surveyor II, as an advanced licensed professional class, performs a level, scope, and variety of duties with authority and responsibility similar in characteristics to the Engineer/Architect II (22), Environmental Engineering Associate II (22), Environmental Engineer II (22), and Village Safe Water Engineer II (22). The Land Surveyor II lacks the supervisory and administrative responsibilities of the Environmental Program Manager III (23), Utility Engineering Analyst V (23), Village Safe Water Engineer III (23), Communications Engineer II (23), and Technical Engineer I/Architect I (23). The programmatic responsibilities, level of difficulty, and required scope of knowledge are similar to the characteristics of the Engineer/Architect II (22), Environmental Engineering Associate II (22), Environmental Engineer II (22), Village Safe Water Engineer II (22), Communications Engineering Associate II, and Communications Engineer I. The level of required knowledge and scope of duties is

greater than what characterizes the Utility Engineering Analyst IV (21), Engineer/Architect I (21), Environmental Engineer I (21), and Village Safe Water Engineer I (21). The substantial similarities of the Land Surveyor II with other advanced professional classes at range 22 indicate the class is appropriately assigned range 22. Additionally, looking at the other job families from the occupational group corroborates alignment at range 22 for this level of scope and responsibility.

In evaluating the internal alignment of the management classes, this analyst evaluated the level and scope of scientific and programmatic knowledge required; the nature of the work supervised and managed; the placement in the organizational hierarchy and the resulting scope of managerial control exercised and received; the responsibility for determination of policy or the way in which policies are carried out; the scope and level of responsibility for an agency's programs; and other factors complicating the exercise of management responsibilities such as number of subordinates and subordinate supervisors; working relationship with other management inside and outside the chain of command; and the role and impact on department operations.

The Land Survey Manager I, as a first-level or regional managerial class, performs a scope and level of supervisory, managerial, and administrative duties similar in characteristics to the Technical Engineer I/Architect I (23), Utility Engineering Analyst V (23), Environmental Program Manager III (23), Communications Engineer II (23), and Village Safe Water Engineer III (23). The initial examination of the range of duties; the scope and depth of scientific knowledge required; and the nature and level of managerial control exercised and received revealed similarities with managerial classes at range 23, which supported assigning the same range.

The Land Survey Manager II, as a senior management-level class, performs a scope and level of managerial duties with an organizational and policy-level authority similar in characteristics to the Chief Engineering Geologist (24), Vessel Construction Manager III (24), Engineer/Architect III (24), and Geological Scientist II (24). The substantive similarities in responsibilities for a division's programs, policy implementation, organizational control exercised, and limited organizational control received indicates the Land Survey Manager II is properly assigned range 24.

Conclusions:

When the Land Surveyor study was requested by the Department of Natural Resources, the Division of Personnel and Labor Relations was asked to consider creating a managerial-level job class and an advanced non-licensed professional-level job class to the Land Surveying job family. DNR also requested updating the class specifications and performing a salary analysis.

An analysis of the positions, documentation, and interview information resulted in the following:

Land Survey Technician is established. The new class is placed in the Land Surveying job family and is assigned salary range 14. The class code is PK0707.

Land Survey Assistant I (class code PK0701) is abolished.

Land Survey Assistant II (class code PK0702) is revised and retitled to Land Survey Specialist I. The range is changed to 18 and the class code is changed to PK0708.

Land Survey Specialist II is established. The new class is placed in the Land Surveying job family and is assigned salary range 20. The class code is PK0709.

Land Surveyor I is revised and the salary range is changed to 21. The class code is PK0711.

Land Surveyor II is revised and the salary range is changed to 22. The class code is PK0712.

Land Survey Manager I is established. The new class is placed in the Land Surveying job family and is assigned salary range 23. The class code is PK0714.

Land Survey Manager II is established. The new class is placed in the Land Surveying job family and is assigned salary range 24. The class code is K0715.

The revised and new job classes are effective November 1, 2008.

Correspondence on the allocation of study positions is being distributed through the OPD system.

Attachments:

Final class specifications

Allocation Spreadsheet

cc: Dick Mylius, Director
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Department of Natural Resources

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